

# SITE PLAN FOR MULTIFAMILY HOUSING REDEVELOPMENT PROJECT 7 TANTALLON ROAD ANDOVER, MA.

**HOWARD STEIN HUDSON**  
114 Turnpike Road, Suite 2C  
Chelmsford, MA 01824  
www.hshassoc.com

PREPARED FOR:  
Neil Rosenberg  
7 Tantallon Road  
Andover, MA 01810

**THE TANTALLON  
PROPOSED MULTIFAMILY  
REDEVELOPMENT PROJECT  
7 TANTALLON ROAD  
ANDOVER, MA, 01810**

**GENERAL NOTES:**

1. EXISTING PROPERTY LINE AND UTILITY INFORMATION SHOWN IS BASED ON AN EXISTING SURVEY CONDUCTED BY A-PLUS CONSTRUCTION SERVICES CORPORATION, REVISED THROUGH MARCH 12, 2019.
2. THE ACCURACY AND COMPLETENESS OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. AT LEAST 72 HOURS BEFORE EXCAVATION, THE CONTRACTOR SHALL BE REQUIRED TO CONTACT DIGSAFE AT 1-888-344-7233.
3. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE APPROPRIATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION.
5. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN, PRIOR TO EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAVING.
6. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES EXCEPT THOSE NOTED TO BE ABANDONED, REMOVED AND DISPOSED.
7. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS AT HIS/HER OWN EXPENSE, OUTSIDE OF THE PROJECT LIMITS.
8. SITE IS LOCATED WITHIN FEMA FLOODMAP 25009C0217F EFFECTIVE 07/03/2012.

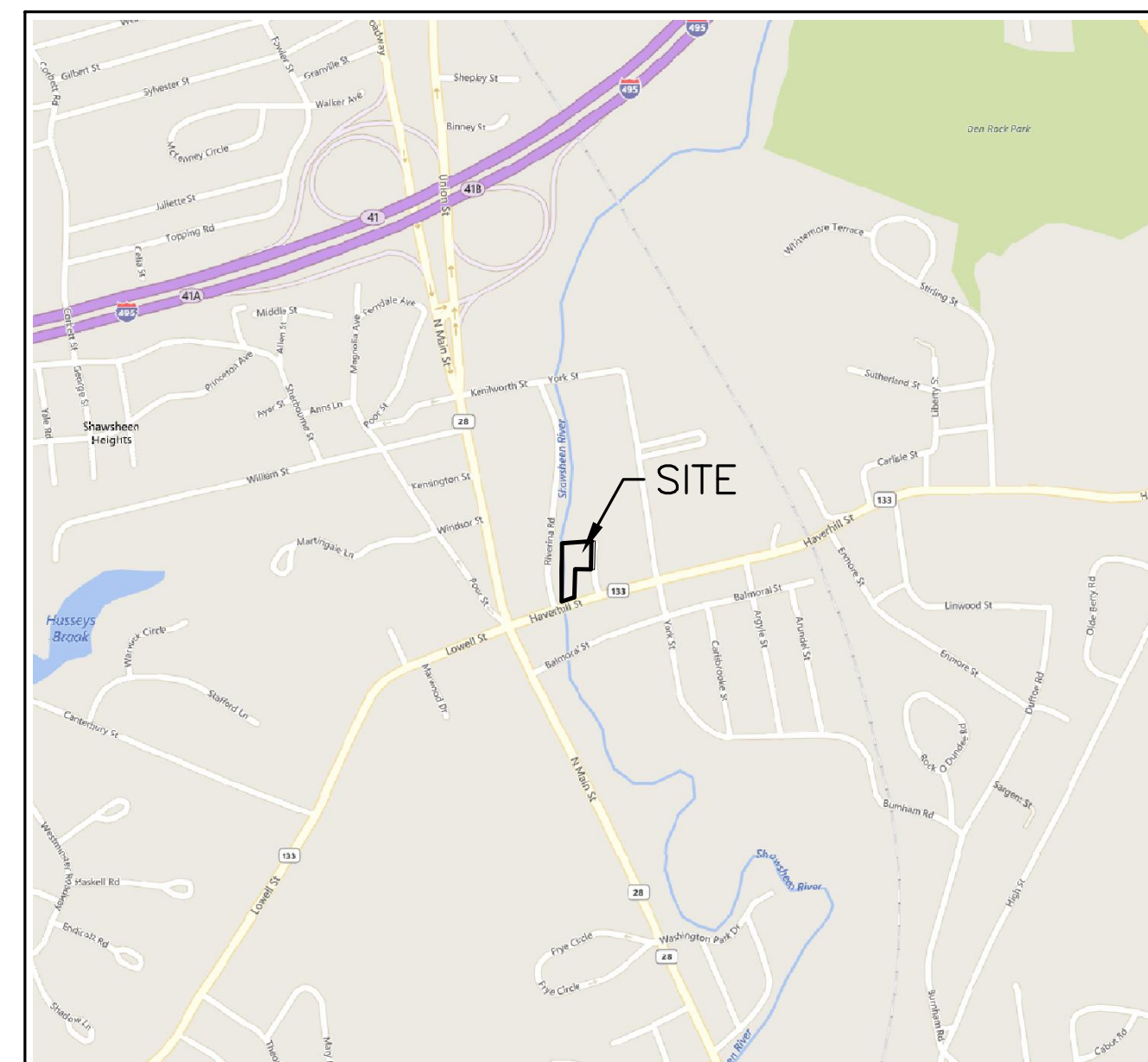
**SHEET INDEX**

SHEET 1	COVER SHEET
SHEET 2	DEMOLITION & EROSION CONTROL PLAN
SHEET 3	LAYOUT AND MATERIALS PLAN
SHEET 4	GRADING AND DRAINAGE PLAN
SHEET 5	UTILITY PLAN
SHEET 6	LANDSCAPE PLAN
SHEET 7	LIGHTING PLAN
SHEET 8	DETAIL SHEET 1 OF 4
SHEET 9	DETAIL SHEET 2 OF 4
SHEET 10	DETAIL SHEET 3 OF 4
SHEET 11	DETAIL SHEET 4 OF 4

**EXISTING CONDITIONS PLAN**

**LEGEND**

—○— CHAIN-LINK FENCE	○ WF# WETLAND FLAG
—□— WROUGHT IRON FENCE	■ CB CATCH BASIN - SQUARE
—○○— STONE WALL	☀ LIGHT POLE
—~— TREELINE	—○— UPL# UTILITY POLE
—70— CONTOUR	□ BOUND (CONC, STONE, LAND COURT, ETC.)
ⓔ ELECTRIC MANHOLE	△ TRAVERSE POINT
Ⓢ SEWER MANHOLE	DH DRILL HOLE
Ⓣ TELEPHONE MANHOLE	○ GG GAS GATE
Ⓞ OTHER MANHOLE	○ WG WATER GATE
EOP EDGE OF PAVEMENT	⊕ MONITORING WELL
TOW TOP OF WATER	



**LOCUS MAP**  
1"=1000'

**PROJECT TEAM:**

**CIVIL ENGINEER**  
HOWARD STEIN HUDSON  
114 TURNPIKE ROAD  
SUITE 2C  
CHELMSFORD, MA 01824

**LANDSCAPE ARCHITECT**  
LORAYNE BLACK  
PO BOX 595  
GROTON, MA 01450

**ARCHITECT**  
LAGRASSE YANOWITZ & FEYL  
1 ELM SQUARE, 3RD FLOOR  
ANDOVER, MA 01810

**LIGHTING CONSULTANT**  
CHARRON INC.  
P.O. BOX 4550  
MANCHESTER, NH 03108

**SURVEYOR**  
A-PLUS CONSTRUCTION SERV. CORP.  
17 ACCORD PARK DRIVE, UNIT 102  
NORWELL, MA 02061

**WETLAND SCIENCE**  
JOHN DICK  
WETLAND SCIENTIST

**OWNER**

NEIL ROSENBERG  
7 TANTALLON ROAD  
ANDOVER, MA 01810

**ASSESSORS INFORMATION**

ASSESSORS MAP 35 LOTS 5A & 6

**REFERENCES**

1. EXISTING CONDITIONS SURVEY PREPARED FOR HOWARD STEIN HUDSON BY A-PLUS CONSTRUCTION SERVICES CORPORATION, REVISED THROUGH MARCH 12, 2019.

**ZONING REQUIREMENTS**

GB – GENERAL BUSINESS DISTRICT  
FHOD – FLOOD HAZARD OVERLAY DISTRICT  
DIMENSIONAL REQUIREMENTS

	REQUIREMENT	EXISTING	PROPOSED
MINIMUM LOT AREA	48,000* SF	45,346± SF	49,097± SF
MINIMUM FRONT YARD	(A)	152.3± FT	152.6± FT
MINIMUM SIDE/REAR YARD	(B)	3± FT	4± FT
BUILDING COVERAGE	66% (C)	21%	23%
MAXIMUM STORIES	4	2	4
MAXIMUM BUILDING HEIGHT	50 FT	<50 FT	50 FT

\*2,000 SF OF LOT AREA IS REQUIRED PER DWELLING UNIT. TWENTY FOUR (24) UNITS ARE PROPOSED.

(A) IN THE GENERAL BUSINESS DISTRICT, THE FRONT SETBACK SHALL BE THE AVERAGE FRONT SETBACK OF EXISTING BUILDINGS ON THE BLOCK.

(B) NO BUILDING IN A BUSINESS DISTRICT SHALL BE ERECTED OR EXPANDED WITHIN 15 FEET OF A BUILDING CONTAINING A RESIDENTIAL USE, REGARDLESS OF THE ZONING DISTRICT IN WHICH SAID BUILDING CONTAINING A RESIDENTIAL USE IS LOCATED.

(C) IN A GENERAL BUSINESS DISTRICT, AN EXISTING STRUCTURE OCCUPYING MORE THAN 2/3 OF THE LOT AREA SHALL NOT BE EXPANDED. NEW STRUCTURES SHALL NOT EXCEED 2/3 OF THE LOT AREA WITHIN THE GENERAL BUSINESS DISTRICT.

**PARKING REQUIREMENTS**

PLANNED DEVELOPMENT – 24 UNIT MULTIFAMILY RESIDENTIAL STRUCTURE  
TWO PARKING SPACES PER DWELLING UNIT

REQUIRED: 24 DWELLING UNITS X 2 SPACES/DWELLING UNIT = 48 SPACES

PROPOSED: 58 TOTAL PARKING SPACES  
24 OPEN AIR PARKING SPACES UNDERNEATH THE BUILDING  
16 SURFACE PARKING SPACES  
8 COMPACT SURFACE PARKING SPACES  
10 DEEDED PARKING SPACES FOR USE OF 12 HAVERHILL STREET  
TOTAL PARKING SPACES = 24+16+8+10 = 58 TOTAL PARKING SPACES  
50 PROPOSED STANDARD PARKING SPACES  
8 PROPOSED COMPACT PARKING SPACES  
\*10 PARKING SPACES TO BE USED BY PATRONS OF 12 HAVERHILL STREET DURING

**SITE PLAN AND SPECIAL PERMITS REQUIRED**

1. PER SECTION 3.1.3 – TABLE OF USE REGULATIONS – PLANNED DEVELOPMENT, MULTIFAMILY OR MIXED-USE (SECTION 7.2)
2. PER SECTION 8.3.4 – FLOOD HAZARD OVERLAY DISTRICT – REGULATIONS.

**REVISIONS:**

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



SITE  
PLAN

COVER  
SHEET

DATE:	10-24-2017
PROJECT NUMBER:	17024
DESIGNED BY:	TM
DRAWN BY:	TM
CHECKED BY:	KE

1

SHEET 1 OF 11



HOWARD STEIN HUDSON

114 Turnpike Road, Suite 2C  
Chelmsford, MA 01824  
www.hshassoc.com

PREPARED FOR:  
Neil Rosenberg  
7 Tantalton Road  
Andover, MA 01810

# THE TANTALLON PROPOSED MULTIFAMILY REDEVELOPMENT PROJECT 7 TANTALLON ROAD ANDOVER, MA, 01810

REVISIONS:

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



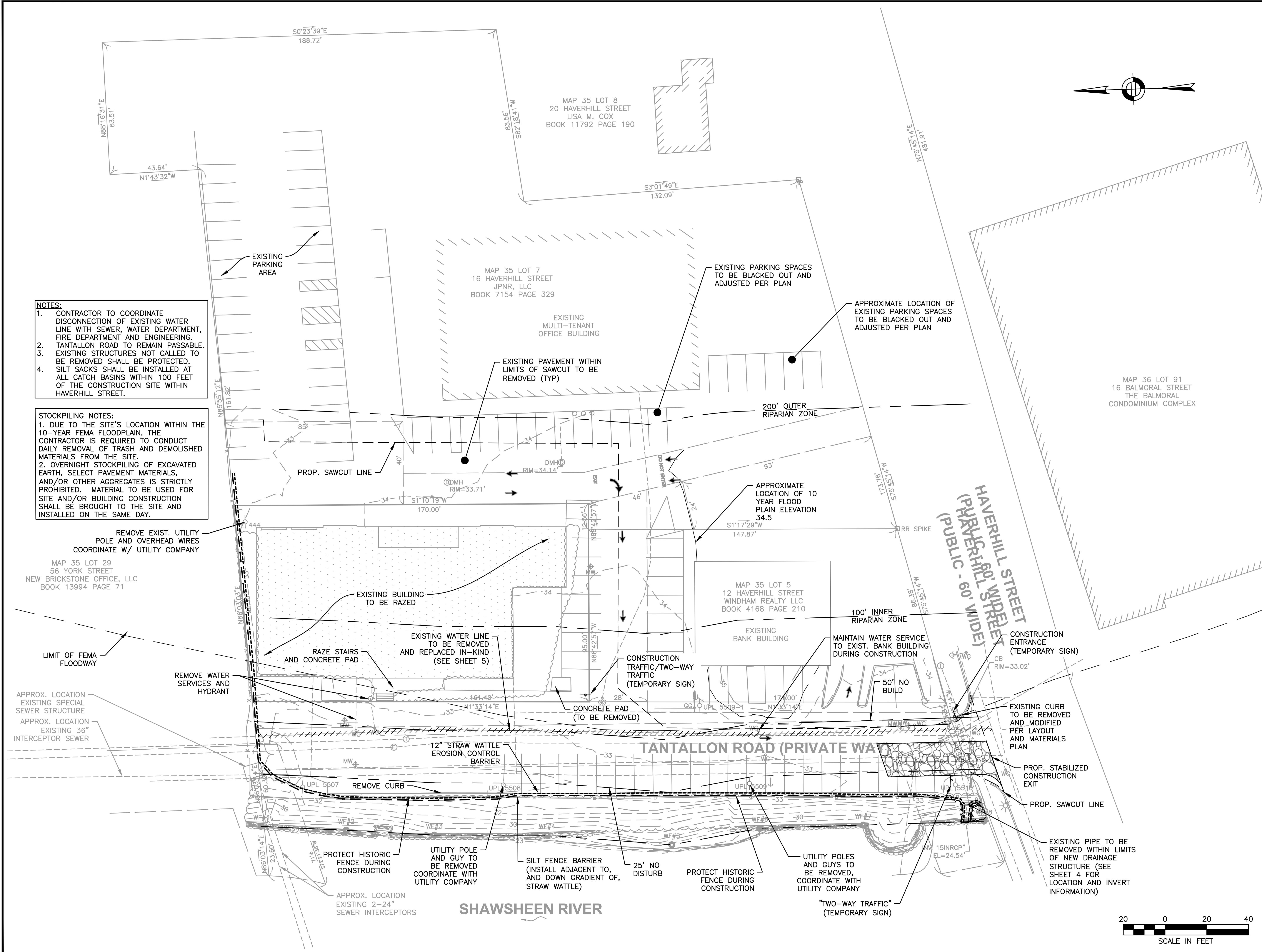
SITE  
PLAN

## DEMOLITION & EROSION CONTROL PLAN

DATE:	10-24-2017
PROJECT NUMBER:	17024
DESIGNED BY:	TM
DRAWN BY:	TM
CHECKED BY:	KE

2

SHEET 2 OF 11



- NOTES:**
1. CONTRACTOR TO COORDINATE DISCONNECTION OF EXISTING WATER LINE WITH SEWER, WATER DEPARTMENT, FIRE DEPARTMENT AND ENGINEERING.
  2. TANTALLON ROAD TO REMAIN PASSABLE.
  3. EXISTING STRUCTURES NOT CALLED TO BE REMOVED SHALL BE PROTECTED. SILT SACKS SHALL BE INSTALLED AT ALL CATCH BASINS WITHIN 100 FEET OF THE CONSTRUCTION SITE WITHIN HAVERHILL STREET.
  - 4.

- STOCKPILING NOTES:**
1. DUE TO THE SITE'S LOCATION WITHIN THE 10-YEAR FEMA FLOODPLAIN, THE CONTRACTOR IS REQUIRED TO CONDUCT DAILY REMOVAL OF TRASH AND DEMOLISHED MATERIALS FROM THE SITE.
  2. OVERNIGHT STOCKPILING OF EXCAVATED EARTH, SELECT PAVEMENT MATERIALS, AND/OR OTHER AGGREGATES IS STRICTLY PROHIBITED. MATERIAL TO BE USED FOR SITE AND/OR BUILDING CONSTRUCTION SHALL BE BROUGHT TO THE SITE AND INSTALLED ON THE SAME DAY.



HOWARD STEIN HUDSON

114 Turnpike Road, Suite 2C  
Chelmsford, MA 01824  
www.hshassoc.com

PREPARED FOR:  
Neil Rosenberg  
7 Tantalton Road  
Andover, MA 01810

# THE TANTALLON PROPOSED MULTIFAMILY REDEVELOPMENT PROJECT 7 TANTALLON ROAD ANDOVER, MA, 01810

### REVISIONS:

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



SITE  
PLAN

## LAYOUT AND MATERIALS PLAN

DATE: 10-24-2017

PROJECT NUMBER: 17024

DESIGNED BY: TM

DRAWN BY: TM

CHECKED BY: KE

3

SHEET 3 OF 11

MAP 35 LOT 8  
20 HAVERHILL STREET  
LISA M. COX  
BOOK 11792 PAGE 190

MAP 35 LOT 7  
16 HAVERHILL STREET  
JPNR, LLC  
BOOK 7154 PAGE 329

MAP 35 LOT 29  
56 YORK STREET  
NEW BRICKSTONE OFFICE, LLC  
BOOK 13994 PAGE 71

MAP 35 LOT 5  
12 HAVERHILL STREET  
WINDHAM REALTY LLC  
BOOK 4168 PAGE 210

**FEMA FLOODPLAIN NOTE:**  
FEMA 100-YEAR FLOOD ELEVATION (ZONE AE) IS 38, AS SHOWN ON FLOOD INSURANCE RATE MAP 25009C0217F DATED JULY 3, 2012. THIS PROJECT SITE LIES ENTIRELY WITHIN THE FEMA AE ZONE.

**FEMA FLOODPLAIN NOTE:**  
FEMA 10-YEAR FLOOD ELEVATION IS 34.5, AS SHOWN ON ESSEX COUNTY MASSACHUSETTS FLOOD INSURANCE STUDY, PROFILE 144P, REVISED JULY 19, 2018. THIS PROJECT SITE LIES ENTIRELY WITHIN THE FEMA 10-YEAR FLOOD ZONE.

**FLOOD ADVISORY SIGNAGE NOTE:**  
WARNING SIGNS INDICATING THE RISK OF RISING FLOOD WATER IS PROPOSED THROUGHOUT THE SITE. A TOTAL OF NINE (9) FLOOD WARNING SIGNS SHALL BE LOCATED AS FOLLOWS:  
ONE (1) AT REAR GARAGE ENTRY; TWO (2) ALONG SOUTH BUILDING FACE; THREE (3) IN THE LANDSCAPE AREA SOUTH OF THE FRONT BUILDING ENTRY; TWO (2) ALONG THE PARKING SPACES ADJACENT TO THE HAVERHILL STREET ENTRANCE AND ONE (1) IN THE GROUND-LEVEL LOBBY AREA (INSIDE THE BUILDING). THE SIGNS SHALL BE AS DEPICTED ON DETAIL SHEET 1.

**NOTE:**  
SNOW STORAGE SHALL BE PROVIDED ON MAP 35 LOT 7 FOR THE TANTALLON PROPERTY. AN EASEMENT WILL BE PROVIDED.

"VISITOR PARKING FOR THE TANTALLON M-F 5:00 PM TO 7:00 AM ONLY VIOLATORS WILL BE TOWED AT OWNERS EXPENSE"  
PROP. GATE W/ CLICK TO ACCESS LOCK FOR FIRE DEPT. TO BE ADDED TO EXIST. FENCE COORDINATE WITH ABUTTING PROPERTY OWNER

PROP. BRICK/PAVER APRON FOR FIRE DEPT ACCESS (TYPE TBD PER FIRE DEPT)

4' CONCRETE WALKWAY  
STRAW WATTLE EROSION CONTROL BARRIER

EXISTING GATE ADD CLICK TO ACCESS LOCK FOR FIRE DEPT. COORDINATE WITH ABUTTING PROPERTY OWNER

EXISTING FENCE

EXISTING LIMITS OF PAVEMENT TO BE STRIPED FOR PEDESTRIAN ACCESS

APPROXIMATE LOCATION OF ENTRANCE (TYP.)

PROPOSED LOT LINE (TYP.)

PROP. SAWCUT LINE

EXISTING MULTI-TENANT OFFICE BUILDING

EXISTING BOLLARDS TO REMAIN (TYP.)

PROPOSED 16'x9' COMPACT PARKING SPACES (TYP.)

PROPOSED 18'x9' PARKING SPACES TO BE RE-STRIPED (TYP.)

EXISTING LIMITS OF PAVEMENT TO BE STRIPED FOR PEDESTRIAN ACCESS

APPROXIMATE LOCATION OF EXISTING TRANSFORMER (TYP.)

APPROXIMATE LIMIT OF EXISTING SIDEWALK

PROP. ENTRANCE SIGN

PROPOSED CROSSWALK (TYP.)

EXIST. EASEMENT (TYP.)

EXIST. PAINTED TRAFFIC FLOW ARROW (TYP.)

EXISTING BANK BUILDING

PROP. SAWCUT LINE

100' INNER RIPARIAN ZONE

RECONFIGURE FLUSH GRANITE CURB AND CONSTRUCT NEW ADA-COMPLIANT RAMP

CB RIM=33.02'

PROP. STOP SIGN

REMOVE PAVEMENT & REPAVE TO GUTTER LINE

20'R

ADD DETECTABLE WARNING STRIP TO EXISTING ACCESSIBLE RAMP WITHIN HAVERHILL STREET

FLOOD ADVISORY SIGN #1 (TYP.)

PROPOSED PARKING SPACE (18'x9') TO BE RECONSTRUCTED IN EXISTING LOCATION OF SPACES (TYP.)

FLOOD ADVISORY SIGN #2 (TYP.)

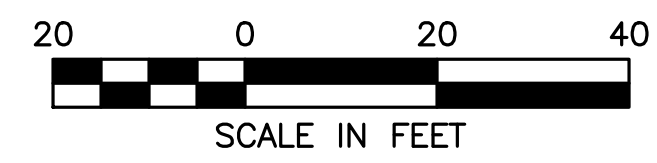
EXISTING HISTORIC FENCE TO BE PROTECTED DURING CONSTRUCTION

PARKING SPACES TO BE USED BY CUSTOMERS OF 12 HAVERHILL STREET PER DEED BOOK 2266 PAGE 199

SHAWSHEEN RIVER

TANTALLON ROAD (PRIVATE WAY)

HAVERHILL STREET (PUBLIC C - 60' WIDE)







HOWARD STEIN HUDSON

114 Turnpike Road, Suite 2C  
Chelmsford, MA 01824  
www.hshassoc.com

PREPARED FOR:  
Neil Rosenberg  
7 Tantalum Road  
Andover, MA 01810

THE TANTALLON  
PROPOSED MULTIFAMILY  
REDEVELOPMENT PROJECT  
7 TANTALLON ROAD  
ANDOVER, MA, 01810

REVISIONS:

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



SITE  
PLAN

UTILITY  
PLAN

DATE: 10-24-2017

PROJECT NUMBER: 17024

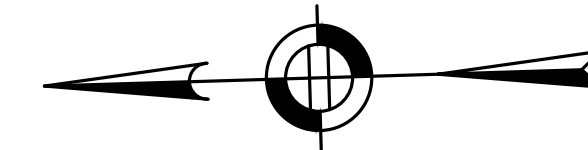
DESIGNED BY: TM

DRAWN BY: TM

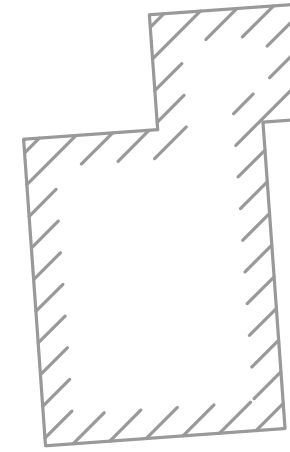
CHECKED BY: KE

5

SHEET 5 OF 11



MAP 35 LOT 8  
20 HAVERHILL STREET  
LISA M. COX  
BOOK 11792 PAGE 190



MAP 35 LOT 7  
16 HAVERHILL STREET  
JPNR, LLC  
BOOK 7154 PAGE 329

APPROXIMATE  
LOCATION OF  
ENTRANCE (TYP.)

PROPOSED  
LOT LINE (TYP.)

200' OUTER  
RIPARIAN ZONE

FEMA FLOODPLAIN NOTE:  
FEMA 100-YEAR FLOOD ELEVATION  
(ZONE AE) IS 38, AS SHOWN ON  
FLOOD INSURANCE RATE MAP  
25009C0217F DATED JULY 3, 2012.  
THIS PROJECT SITE LIES ENTIRELY  
WITHIN THE FEMA AE ZONE.

FEMA FLOODPLAIN NOTE:  
FEMA 10-YEAR FLOOD ELEVATION IS  
34.5, AS SHOWN ON ESSEX COUNTY,  
MASSACHUSETTS FLOOD INSURANCE  
STUDY, PROFILE 144P, REVISED JULY  
19, 2018. THIS PROJECT SITE LIES  
ENTIRELY WITHIN THE FEMA 10-YEAR  
FLOOD ZONE.

MAP 36 LOT 91  
16 BALMORAL STREET  
THE BALMORAL  
CONDOMINIUM COMPLEX

FLOOD ADVISORY SIGNAGE NOTE:  
WARNING SIGNS INDICATING THE RISK OF  
RISING FLOOD WATER IS PROPOSED  
THROUGHOUT THE SITE. A TOTAL OF NINE  
(9) FLOOD WARNING SIGNS SHALL BE  
LOCATED AS FOLLOWS:  
ONE (1) AT REAR GARAGE ENTRY; TWO  
(2) ALONG SOUTH BUILDING FACE; THREE  
(3) IN THE LANDSCAPE AREA SOUTH OF  
THE FRONT BUILDING ENTRY; TWO (2)  
ALONG THE PARKING SPACES ADJACENT TO  
THE HAVERHILL STREET ENTRANCE AND  
ONE (1) IN THE GROUND-LEVEL LOBBY  
AREA (INSIDE THE BUILDING). THE SIGNS  
SHALL BE AS DEPICTED ON DETAIL SHEET  
1.

NOTES:  
1. DEPTHS AND EXACT LOCATION OF ALL  
EXISTING UNDERGROUND UTILITIES UNKNOWN.  
TO BE CONFIRMED PRIOR TO CONSTRUCTION  
AND CONFLICTS DISCUSSED WITH DESIGN  
ENGINEER.  
2. CONTRACTOR TO COORDINATE DISCONNECTION  
OF EXISTING WATER LINE WITH SEWER, WATER  
DEPARTMENT, FIRE DEPARTMENT AND  
ENGINEERING.

MAP 35 LOT 29  
56 YORK STREET  
NEW BRICKSTONE OFFICE, LLC  
BOOK 13994 PAGE 71

CONNECT TO EXIST.  
GAS SERVICE  
COORDINATE WITH  
UTILITY COMPANY

LIMIT OF FEMA  
FLOODWAY

BACKFLOW PREVENTER &  
CLEANOUT W/ CAST IRON COVER

50 LF, 6"SDR35 PVC  
S=0.035 ft/ft

APPROX. LOCATION  
EXISTING SPECIAL  
SEWER STRUCTURE

APPROX. LOCATION  
EXISTING 36"  
INTERCEPTOR SEWER

CONNECT TO EXISTING  
WATER MAIN

DEPTHS OF EXISTING UTILITIES  
UNKNOWN, TO BE CONFIRMED  
PRIOR TO CONSTRUCTION AND CONFLICTS  
DISCUSSED W/ DESIGN ENGINEER

CONNECT TO EXIST.  
UTILITY POLE  
COORDINATE WITH  
UTILITY COMPANY

EXISTING SEWER INVERTS WERE  
ESTIMATED AND ASSUMED.  
CONTRACTOR TO VERIFY INVERTS  
PRIOR TO CONSTRUCTION AND  
VERIFY ENGINEER IF THERE IS A  
SIGNIFICANT VARIATION TO ASSUMED  
INVERTS.

APPROX. LOCATION  
EXISTING 2-24"  
SEWER INTERCEPTORS

EXISTING SEWER LINE  
TO BE CAMERA INSPECTED  
& FEASIBILITY OF USABILITY PRIOR TO  
CONSTRUCTION IN CONSULTATION  
W/ ANDOVER SEWER DEPARTMENT &  
ENGINEER OF RECORD. ANY INEFFICIENCIES  
IN EXISTING SERVICE ENCOUNTERED WITHIN  
THE PROPERTY BOUNDARIES DURING  
INSPECTION SHALL BE FIXED.

MAP 35 LOT 5  
12 HAVERHILL STREET  
WINDHAM REALTY LLC  
BOOK 4168 PAGE 210

EXISTING  
BANK BUILDING

TEMPORARY WATER  
SERVICE SHALL BE  
PROVIDED TO EXIST. BANK  
BUILDING DURING  
REPLACEMENT.  
CONTRACTOR/UTILITY TO  
COORDINATE W/ PROPERTY  
OWNER, WATER DEPT. AND  
FIRE CHIEF.

HAVERHILL STREET  
(PUBLIC - 60' WIDE)

RR SPIKE

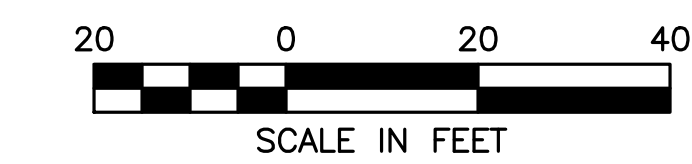
100' INNER  
RIPARIAN ZONE

RECONNECT  
EXISTING WATER  
SERVICES

REMOVE EXISTING GATE AND  
REPLACE WITH  
NEW 10"x8" TEE & GATE VALVE

UNDERGROUND  
ELECTRIC LINE  
(TYP.)

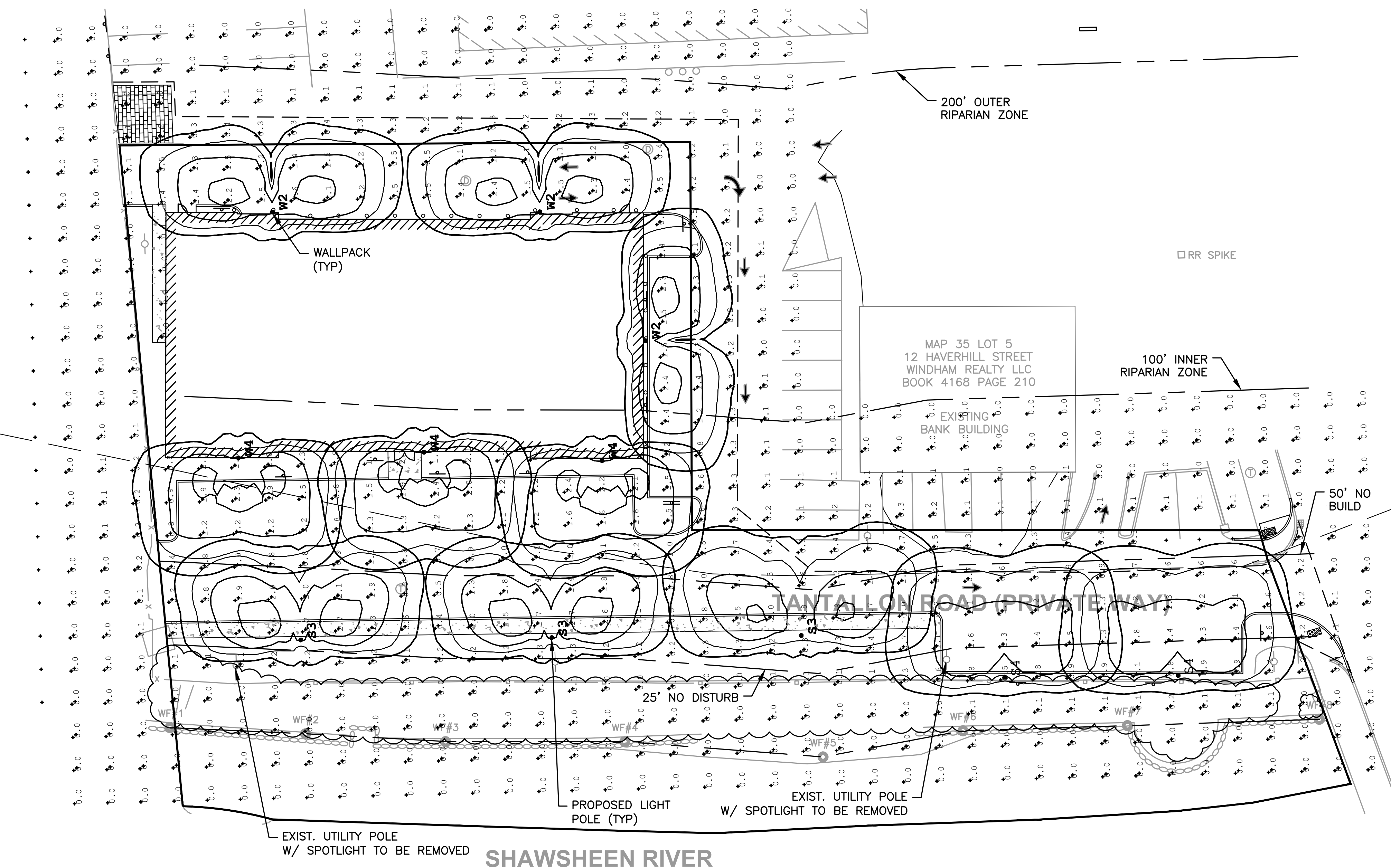
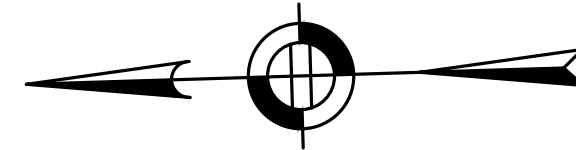
CONNECT TO EXIST.  
UNDERGROUND UTILITIES  
COORDINATE WITH  
UTILITY COMPANY







NOTE: THIS LIGHTING PLAN SHOWS PROPOSED ILLUMINATION LEVELS CALCULATED BY THE NOTED LIGHTING DESIGNER USING DATA PROVIDED BY THE NOTED LUMINAIRE MANUFACTURER. ACTUAL ILLUMINATION LEVELS IN THE FIELD MAY VARY DUE TO EQUIPMENT MANUFACTURING TOLERANCES, INSTALLATION METHODS, AND OTHER FIELD CONDITIONS. THIS LIGHTING PLAN USES A LIGHT LOSS FACTOR (LLF) OF 0.9 FOR THE PROPOSED LED LUMINAIRES IN AN EFFORT TO MODEL THE MATURE LIGHTING PROFILE OF THE LUMINAIRE. THIS LIGHTING PLAN SHOWS ONLY THE PROPOSED LOCATIONS AND TYPES OF LUMINAIRES; ASSOCIATED REQUIREMENTS SUCH AS POWER, CONDUITS, WIRING, OTHER ELECTRICAL FEATURES, AND FOUNDATIONS ARE THE RESPONSIBILITY OF OTHERS.



Symbol	Qty	Label	Arrangement	Description
⊙	3	S3	Single	SIG2-III-48VLED-NW-350-HS-PT / RNTS124-11-PT27
⊙	2	S4	Single	SIG2-IV-48VLED-NW-350-HS-PT / RNTS124-11-PT27
⊙	3	W2	Single	SIG2-II-48VLED-NW-350-HS-WM / WALL MTD 10' AFG
⊙	3	W4	Single	SIG2-IV-48VLED-NW-350-HS-WM / WALL MTD 10' AFG

**StatArea 1**  
SOUTHERN PARKING LOT  
Illuminance (Fc)  
Average = 1.00  
Maximum = 1.8  
Minimum = 0.3  
Avg/Min Ratio = 3.33  
Max/Min Ratio = 6.00

**StatArea 2**  
PARKING AREA WEST OF BUILDING  
Illuminance (Fc)  
Average = 1.36  
Maximum = 2.4  
Minimum = 0.5  
Avg/Min Ratio = 2.72  
Max/Min Ratio = 4.80



### SOLID STATE AREA LIGHTING

## SIGMA SERIES-LED

### SPECIFICATIONS

**HOUSING**  
Heavy cast low copper aluminum assembly (A356 alloy, <0.2% copper). Minimum wall thickness is .188". Traditional styling of the housing provided with cast aluminum housing top hinges for easy access.

**LED OPTICAL MODULE**  
Low copper A356 alloy (<0.2% copper) cast aluminum housing, integrated clear tempered 3/16" glass lens sealed with a continuous silicone gasket protects emitters (LED's) and emitter Reflector-Prism optics, and seals the module from water intrusion and environmental contaminants. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Each emitter is optically controlled by a Reflector-Prism injection molded from H12 acrylic (3 types per module; one from 0° - 50°, one from 50° - 65°, one from 65° - 72°). Each Reflector-Prism has indexing pins for aiming and is secured to an optical plate made of matte black anodized aluminum. The optical plate locates every Reflector-Prism over an emitter. Reflector-Prisms are secured to the optical plate with a UV curing adhesive. The Reflector-Prisms are arrayed to produce IES type II, III, IV, and V-SQ distributions. The entire Optical Module is field rotatable in 90° increments. Both module and drivers are factory wired using water resistant, insulated cord. Lens, module and drivers are field replaceable.

**LED EMITTERS**  
High Output LED's are driven at 350mA for nominal 1 Watt output each. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for 347-480VAC. Driver is mechanically fastened to a retaining bracket. Main power quick disconnect provided. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimming and High-Low Driver options available.

**LED DRIVER**  
UL and CUL recognized High Power Factor, Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60Hz. Consult Factory for 347-480VAC. Driver is mechanically fastened to a retaining bracket. Main power quick disconnect provided. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimming and High-Low Driver options available.

**FINISH**  
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Texture finish is standard.

PROJECT NAME: \_\_\_\_\_  
FIGURE TYPE: \_\_\_\_\_



SIGMA

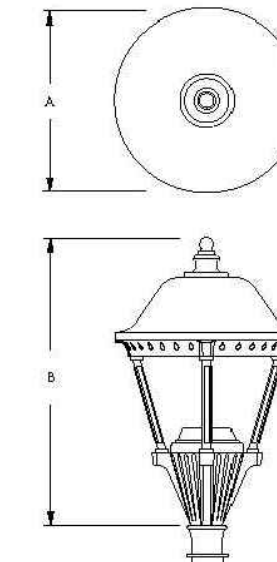


FIGURE	A	B
SIG1	24"	37"
SIG2	18.5"	28"
	40mm	71mm



### SIGMA SERIES - LED

**SPECIFICATIONS**

**MOUNTING STYLES**

XAC: 16" (406mm) height, 3" I.D. arm

XAZ: 18" (457mm) height, 3" I.D. arm

XAT: 18" (457mm) height, 3" I.D. arm

**WALL MOUNT**

ARM BRACKET EXTRUDED AND CAST ALUMINUM CONSTRUCTION.

WALL PLATE: 14" (355mm) x 13.75" (349mm) x 5.75" (146mm) depth

**LED MODULES**

100 LED Module

64 LED Module

LUMINAIRE	OPTICS	LED	MOUNTING	FINISH	OPTIONS
<input type="checkbox"/> SIG1	<input type="checkbox"/> VLED-II (Type II)	<input type="checkbox"/> SIG1 <input type="checkbox"/> NW (4000K) <input type="checkbox"/> CW (5000K) <input type="checkbox"/> WW (3000K)	<input type="checkbox"/> PT <input type="checkbox"/> 2-180 <input type="checkbox"/> 2-90 <input type="checkbox"/> 3-120 <input type="checkbox"/> 4-90	<input type="checkbox"/> BLACK RAL-9005-T <input type="checkbox"/> WHITE RAL-9003-T <input type="checkbox"/> GREY RAL-7004-T <input type="checkbox"/> DARK BRONZE RAL-8019-T <input type="checkbox"/> GREEN RAL-6005-T	<input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD - IH <input type="checkbox"/> EXTERNAL HOUSE SIDE SHIELD - EH <input type="checkbox"/> DIMMABLE DRIVERS (DIM) <input type="checkbox"/> HIGH COW DRIVING FOR HAZARDOUS SWITCHING OR NON-TRANSFERRED MOTION SENSORS <input type="checkbox"/> PHOTO CELL VOLTAGE (EXAMPLE: PCSI30) - PC-V <input type="checkbox"/> 10KV SURGE PROTECTOR <input type="checkbox"/> 20KV SURGE PROTECTOR (20V & 48V Only) - 20SP

Sun Valley Lighting | 400 West Avenue | Redwood, CA 95561 | Phone: (415) 233-2000 | Fax: (415) 233-2001 | www.svl.com

**HOWARD STEIN HUDSON**  
114 Turnpike Road, Suite 2C  
Chelmsford, MA 01824  
www.hshassoc.com

PREPARED FOR:  
Neil Rosenberg  
7 Tantaloon Road  
Andover, MA 01810

**THE TANTALON PROPOSED MULTIFAMILY REDEVELOPMENT PROJECT**  
 7 TANTALON ROAD  
 ANDOVER, MA, 01810

REVISIONS:

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS

SITE PLAN

LIGHTING PLAN

DATE: 10-24-2017  
PROJECT NUMBER: 17024  
DESIGNED BY: TM  
DRAWN BY: TM  
CHECKED BY: KE

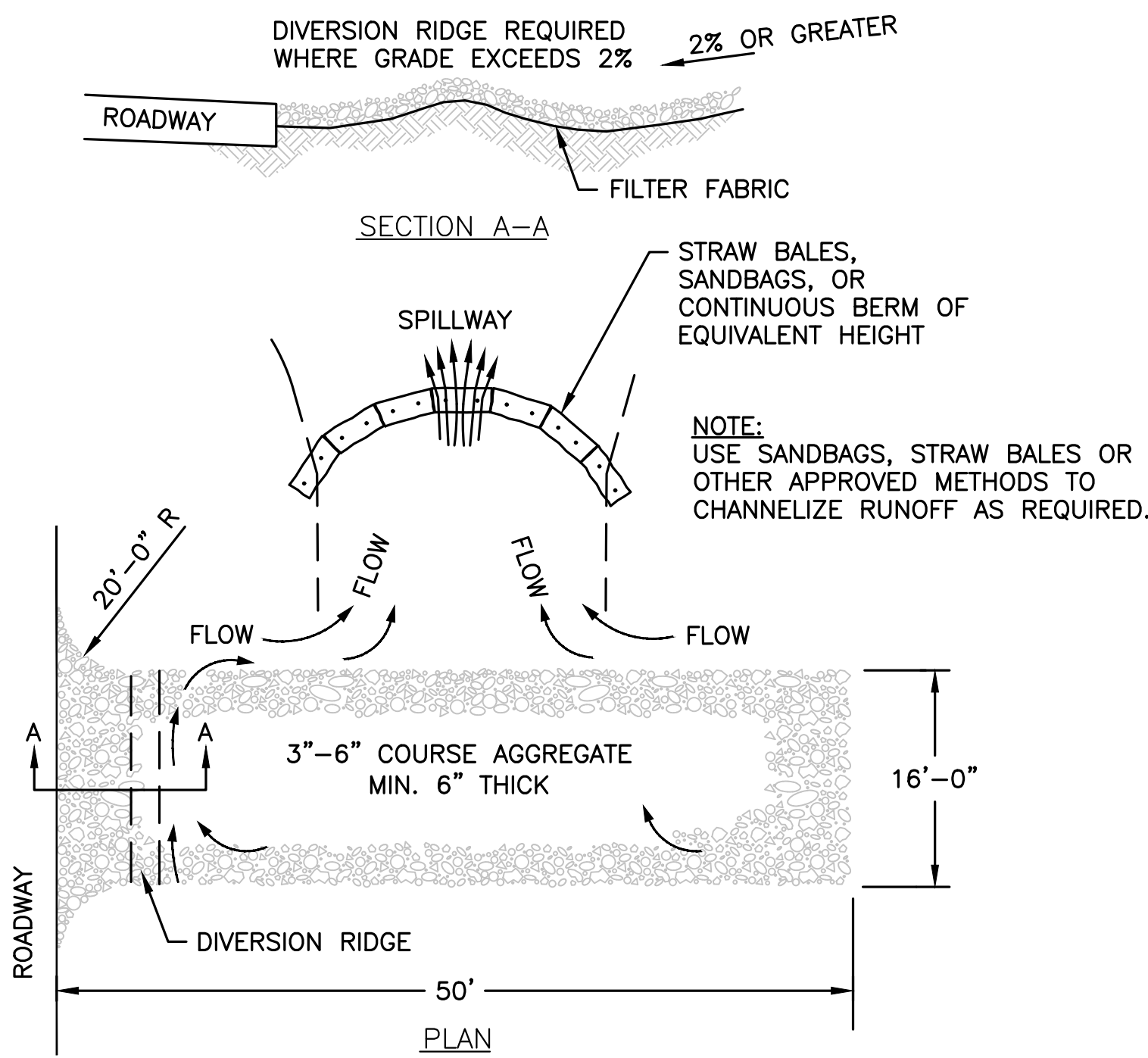
11/17/2022, 11:02:44 CURRENT 17024 Site Plan.dwg Matthew Baker

**EROSION AND SEDIMENT CONTROL NOTES**

1. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED AND UPGRADED AS NECESSARY DURING CONSTRUCTION BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND INSTALL ADDITIONAL CONTROL MEASURES AS NEEDED DURING CONSTRUCTION.
2. ALL CATCH BASINS RECEIVING DRAINAGE FROM THE PROJECT SITE MUST BE PROVIDED WITH A CATCH BASIN FILTER.
3. STABILIZATION OF ALL RE-GRADED AND SOIL STOCKPILE AREAS MUST BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
4. SEDIMENT REMOVED FROM EROSION AND SEDIMENT CONTROL DEVICES MUST BE PROPERLY REMOVED AND DISPOSED OF IN A LEGAL MANNER. ALL DAMAGED CONTROLS MUST BE REMOVED AND REPLACED.
5. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN. THIS INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER TOWN DEPARTMENT(S) OF ANY TRANSFER OF THIS RESPONSIBILITY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING WIND EROSION AND DUST THROUGHOUT THE LIFE OF HIS CONTRACT. DUST CONTROL MAY INCLUDE, BUT IS NOT LIMITED TO, SPRINKLING OF WATER ON EXPOSED SOILS AND STREET SWEEPING ADJACENT ROADWAYS.
7. IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN 21 DAYS AFTER LAND DISTURBANCE ACTIVITIES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZE SOILS WITHIN 14 DAYS OF THE LAST DISTURBANCE.
8. IF A DISTURBED AREA WILL BE EXPOSED FOR GREATER THAN ONE YEAR, PERMANENT GRASSES OR OTHER APPROVED COVER MUST BE INSTALLED.
9. THE CONTRACTOR MUST KEEP ON-SITE AT ALL TIMES ADDITIONAL SILT FENCE AND HAY BALES FOR THE INSTALLATION AT THE DIRECTION OF THE ENGINEER OR THE TOWN TO MITIGATE ANY EMERGENCY CONDITION.
10. THE CONSTRUCTION FENCING AND EROSION AND SEDIMENT CONTROLS AS SHOWN MAY NOT BE PRACTICAL DURING ALL STAGES OF CONSTRUCTION. EARTHWORK ACTIVITY ON-SITE MUST BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO A SEDIMENT CONTROL DEVICE OR INFILTRATED TO THE GROUND.
11. DEMOLITION AND CONSTRUCTION DEBRIS MUST BE PROPERLY CONTAINED AND DISPOSED OF.
12. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE HAULED OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

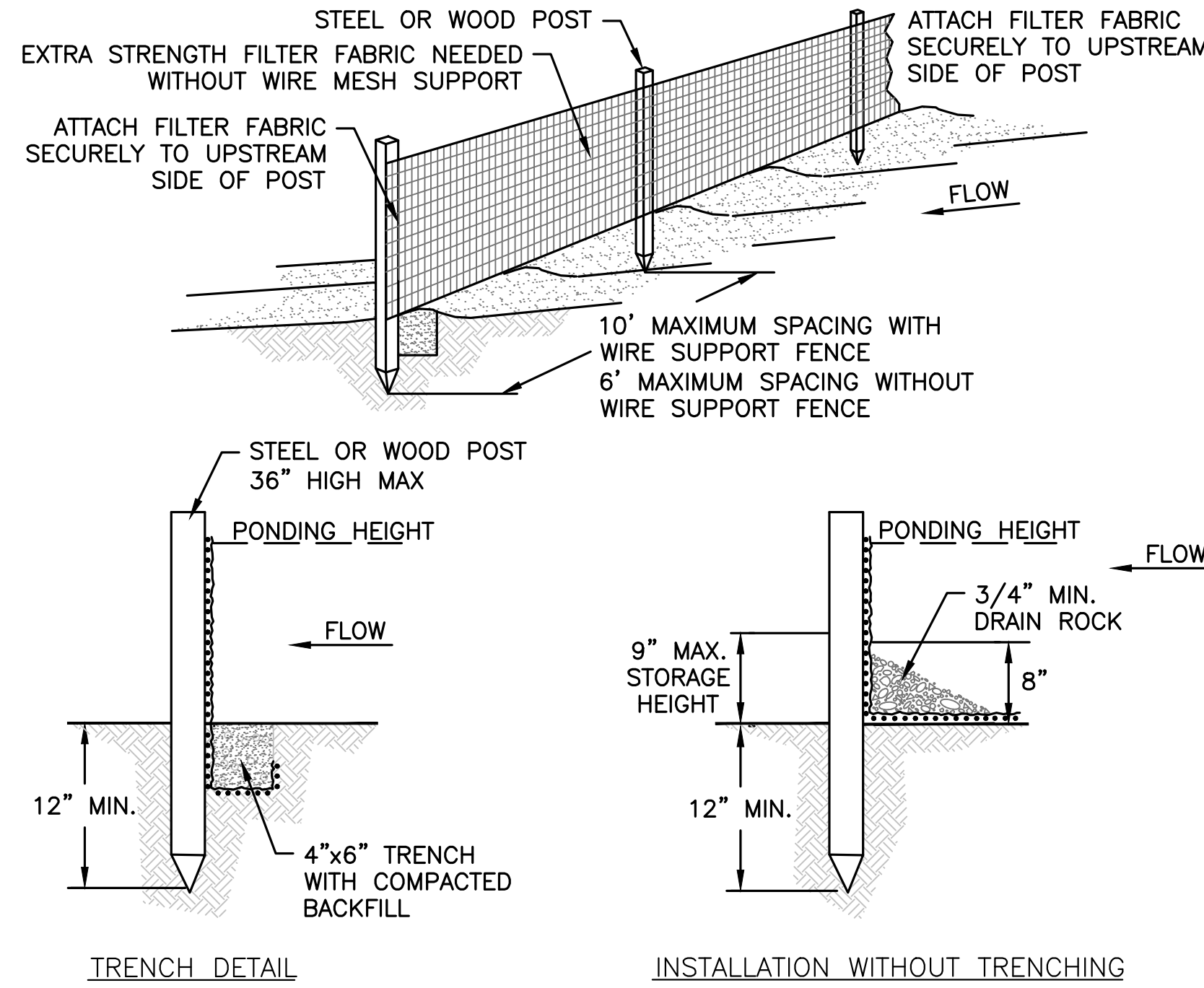
**GENERAL CONSTRUCTION SEQUENCE**

1. INSTALL EROSION AND SEDIMENT CONTROLS PRIOR TO STARTING ANY EARTHWORKS ACTIVITY.
2. INSTALL CONSTRUCTION ENTRANCE.
3. BEGIN BUILDING, PAVEMENT, AND UTILITY DEMOLITION.
4. CONSTRUCT STORMWATER MANAGEMENT SYSTEM AND UTILITY REPLACEMENT/EXTENSIONS.
5. INSTALL SITE FURNISHINGS.
6. INSTALL PAVEMENT AND CURBS.
7. INSTALL LANDSCAPING.
8. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED UNTIL PERMANENT COVER IS ESTABLISHED, AND THE AUTHORIZATION TO REMOVE SUCH CONTROLS HAS BEEN ISSUED IN WRITING BY THE TOWN OF ANDOVER CONSERVATION DEPARTMENT.

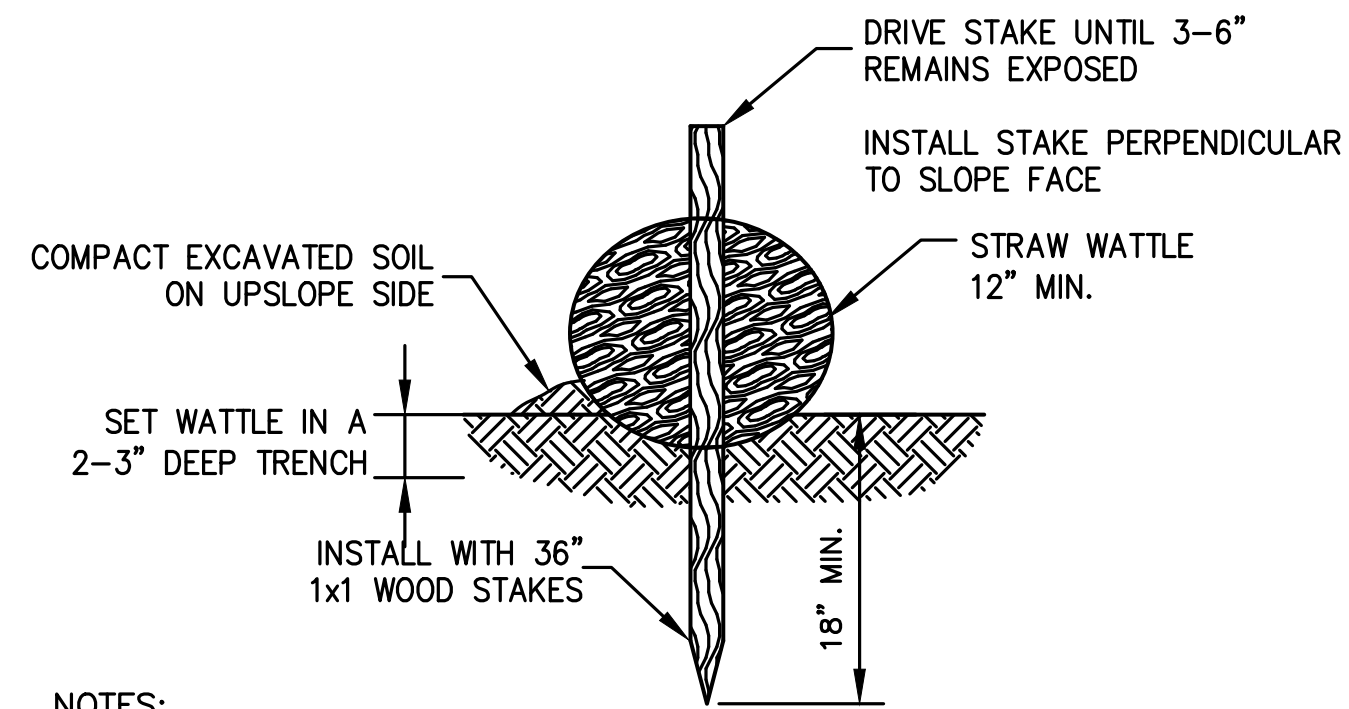


- NOTES:**
1. THIS ENTRANCE SHALL BE ADJUSTED IN SIZE AND LOCATED ON THE SITE BY THE CONTRACTOR, IN COORDINATION WITH THE TOWN OF ANDOVER CONSERVATION DEPARTMENT. SITE CIRCULATION FOR ADJACENT BUSINESSES SHALL BE MAINTAINED AT ALL TIMES.
  2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  3. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  4. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE APPLIED WHERE NECESSARY TO KEEP PUBLIC WAYS FREE OF SEDIMENT INCLUDING STAGING AREAS

**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

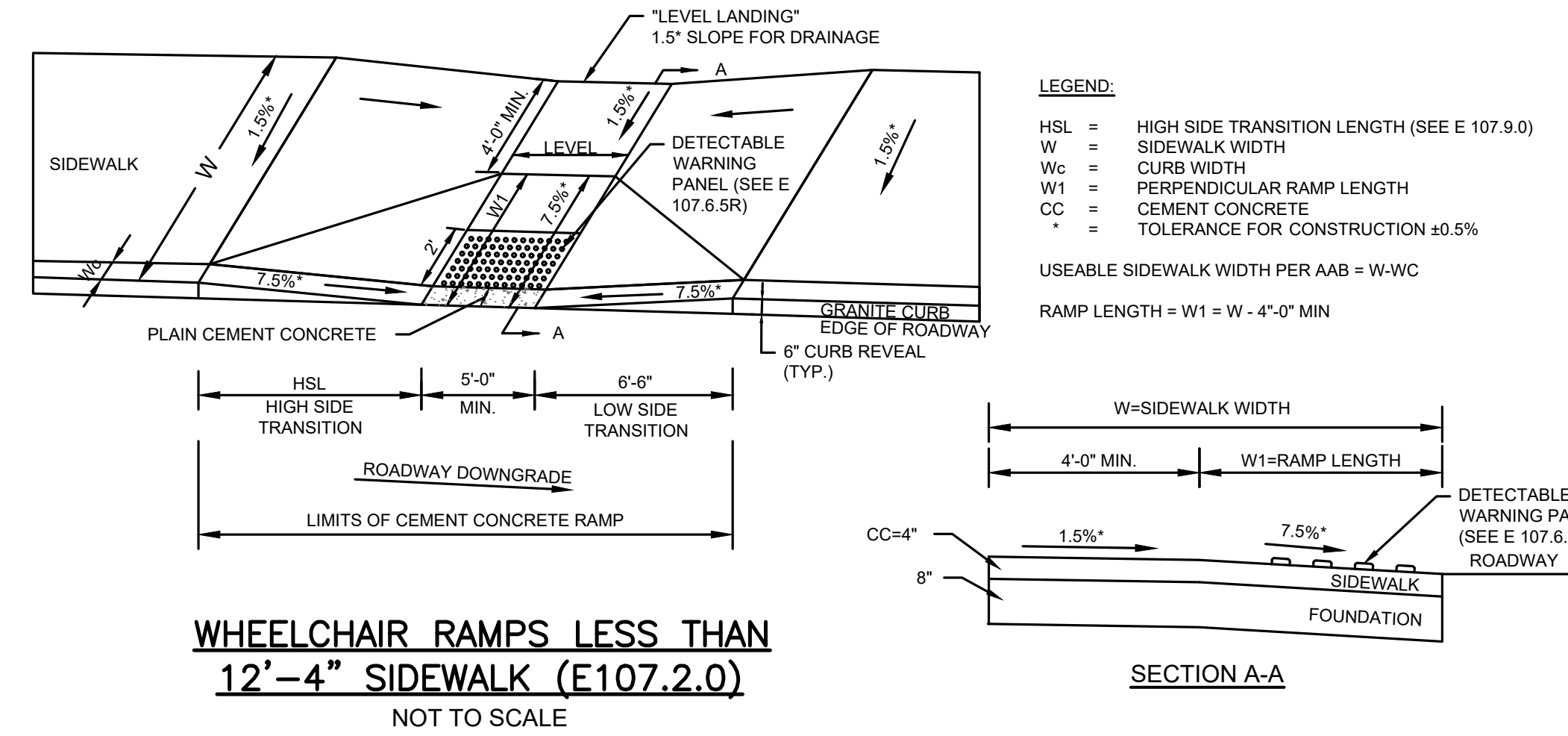


**SILT FENCE BARRIER**  
NOT TO SCALE

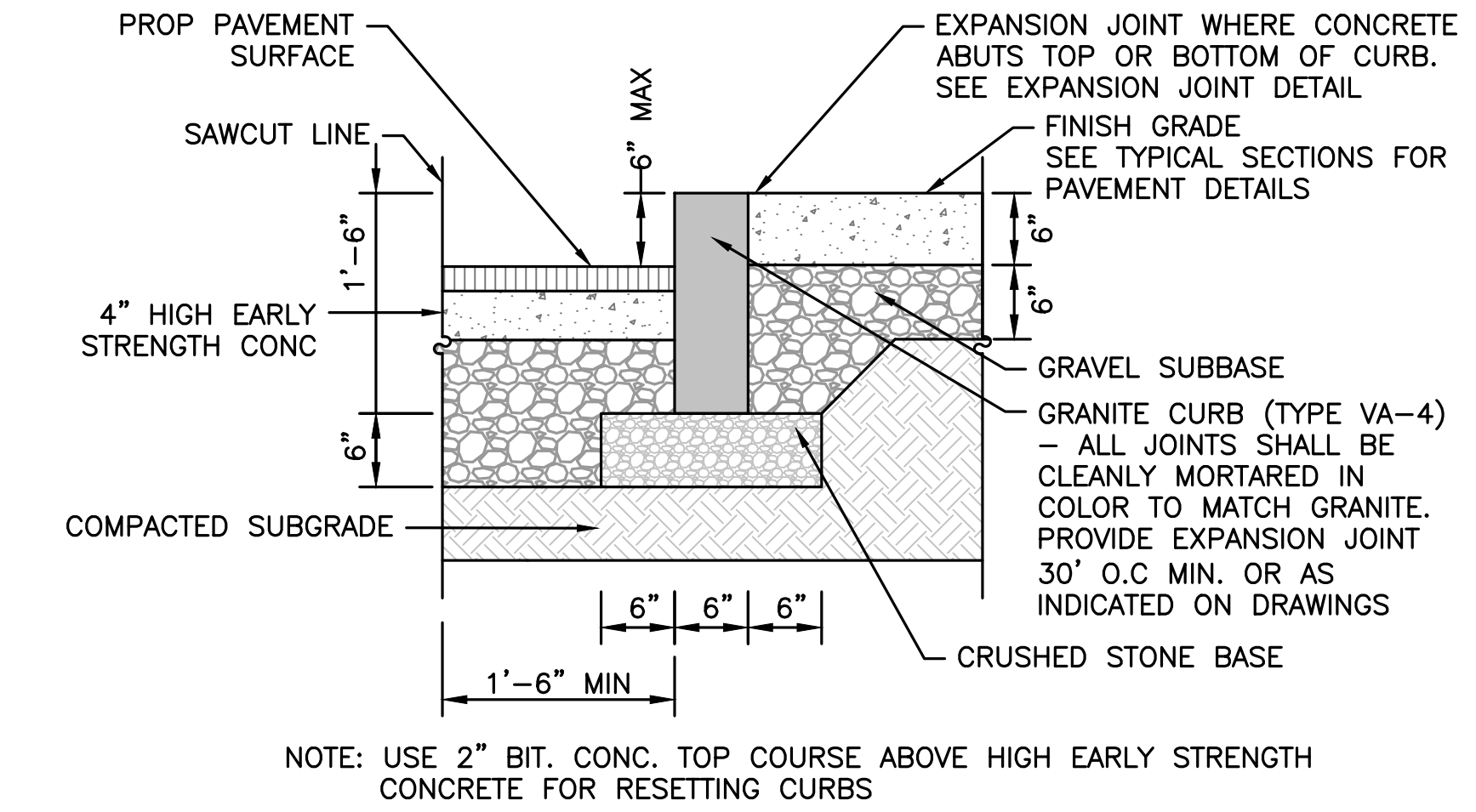


- NOTES:**
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3"(5-7.5 CM) DEEP X 9"(22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
  2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPSLOPE SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
  3. SECURE THE WATTLE WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 - 1.2 M) AND WITH A STAKE ON EACH END. (STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

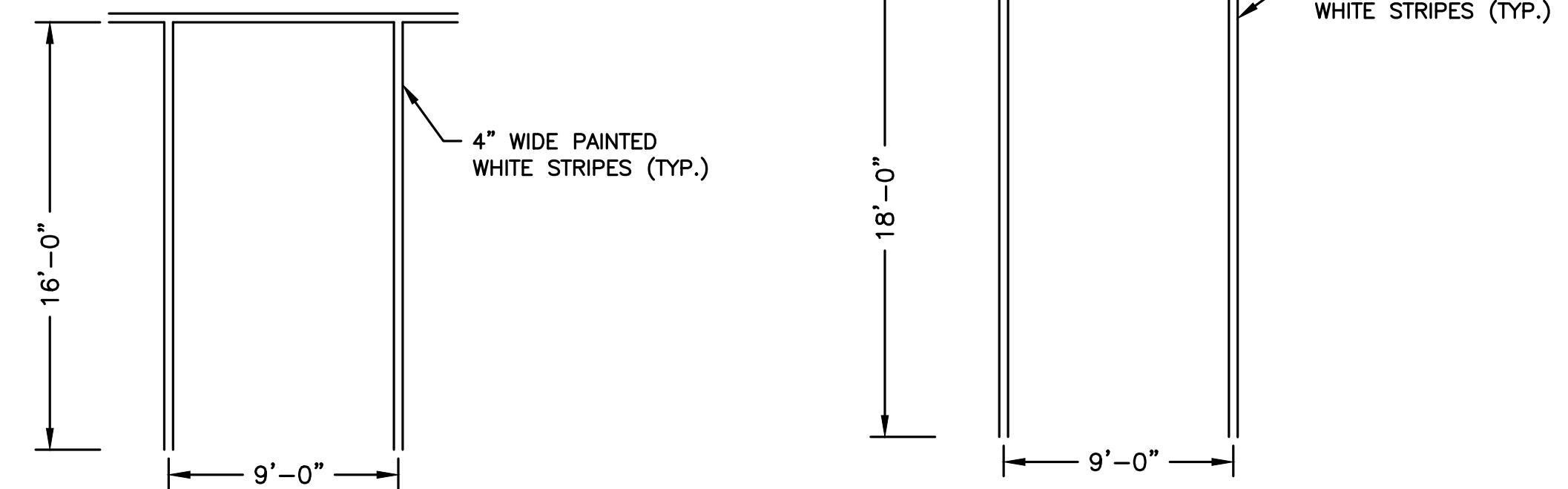
**STRAW WATTLE DETAIL**  
NOT TO SCALE



**WHEELCHAIR RAMPS LESS THAN 12'-4" SIDEWALK (E107.2.0)**  
NOT TO SCALE

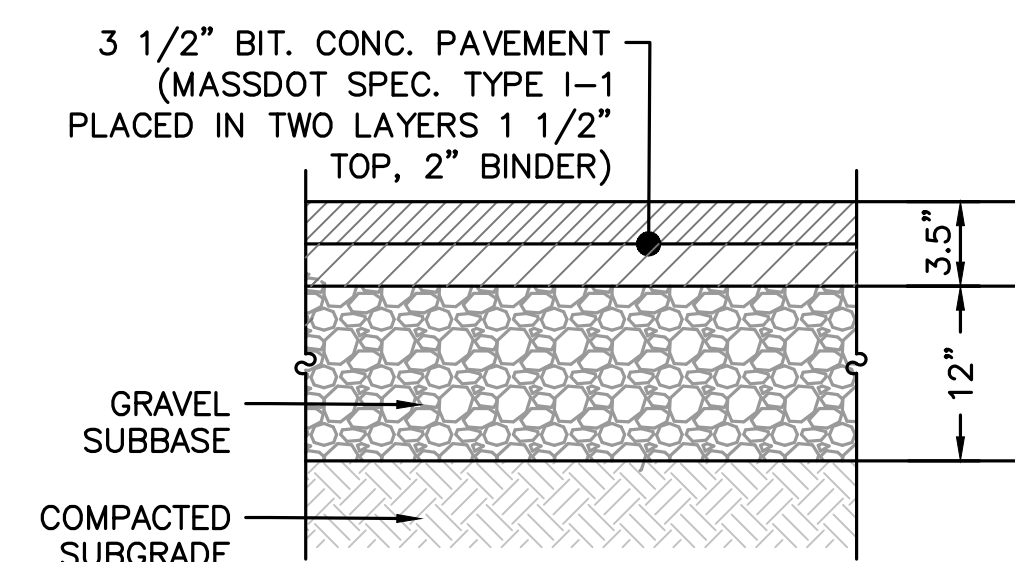


**VERTICAL GRANITE CURB**  
NOT TO SCALE

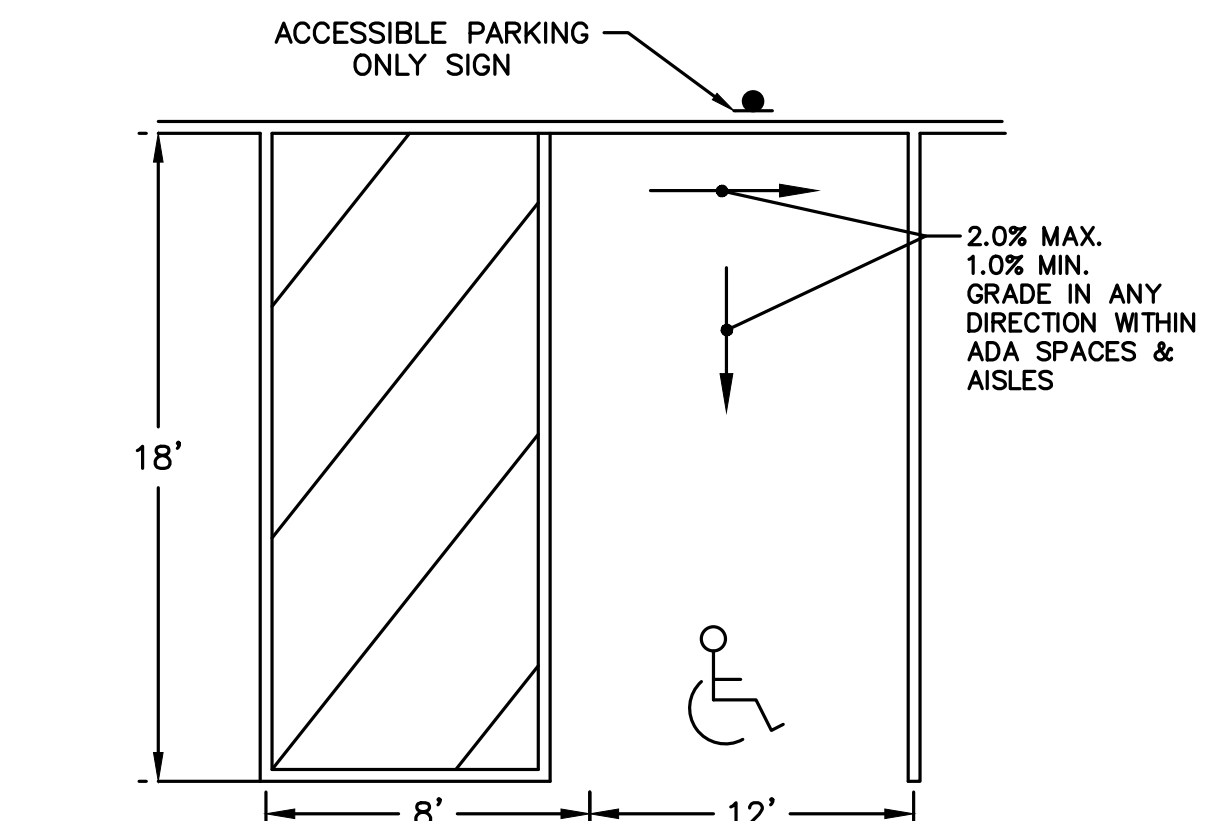


**TYPICAL COMPACT PARKING SPACE DETAIL**  
NOT TO SCALE

**TYPICAL PARKING SPACE DETAIL**  
NOT TO SCALE



**FULL DEPTH DRIVEWAY SECTION DETAIL**  
NOT TO SCALE



**TYPICAL HANDICAP PARKING SPACE DETAIL**  
NOT TO SCALE

PREPARED FOR:  
Neil Rosenberg  
7 Tantalton Road  
Andover, MA 01810

**THE TANTALLON PROPOSED MULTIFAMILY REDEVELOPMENT PROJECT**  
7 TANTALLON ROAD  
ANDOVER, MA, 01810

**REVISIONS:**

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



SITE PLAN

DETAIL SHEET 1 OF 4

DATE:	10-24-2017
PROJECT NUMBER:	17024
DESIGNED BY:	TM
DRAWN BY:	TM
CHECKED BY:	KE



**HOWARD STEIN HUDSON**  
 114 Turnpike Road, Suite 2C  
 Chelmsford, MA 01824  
 www.hshassoc.com

PREPARED FOR:  
 Neil Rosenberg  
 7 Tantalum Road  
 Andover, MA 01810

**THE TANTALLON  
 PROPOSED MULTIFAMILY  
 REDEVELOPMENT PROJECT  
 7 TANTALLON ROAD  
 ANDOVER, MA, 01810**

REVISIONS:

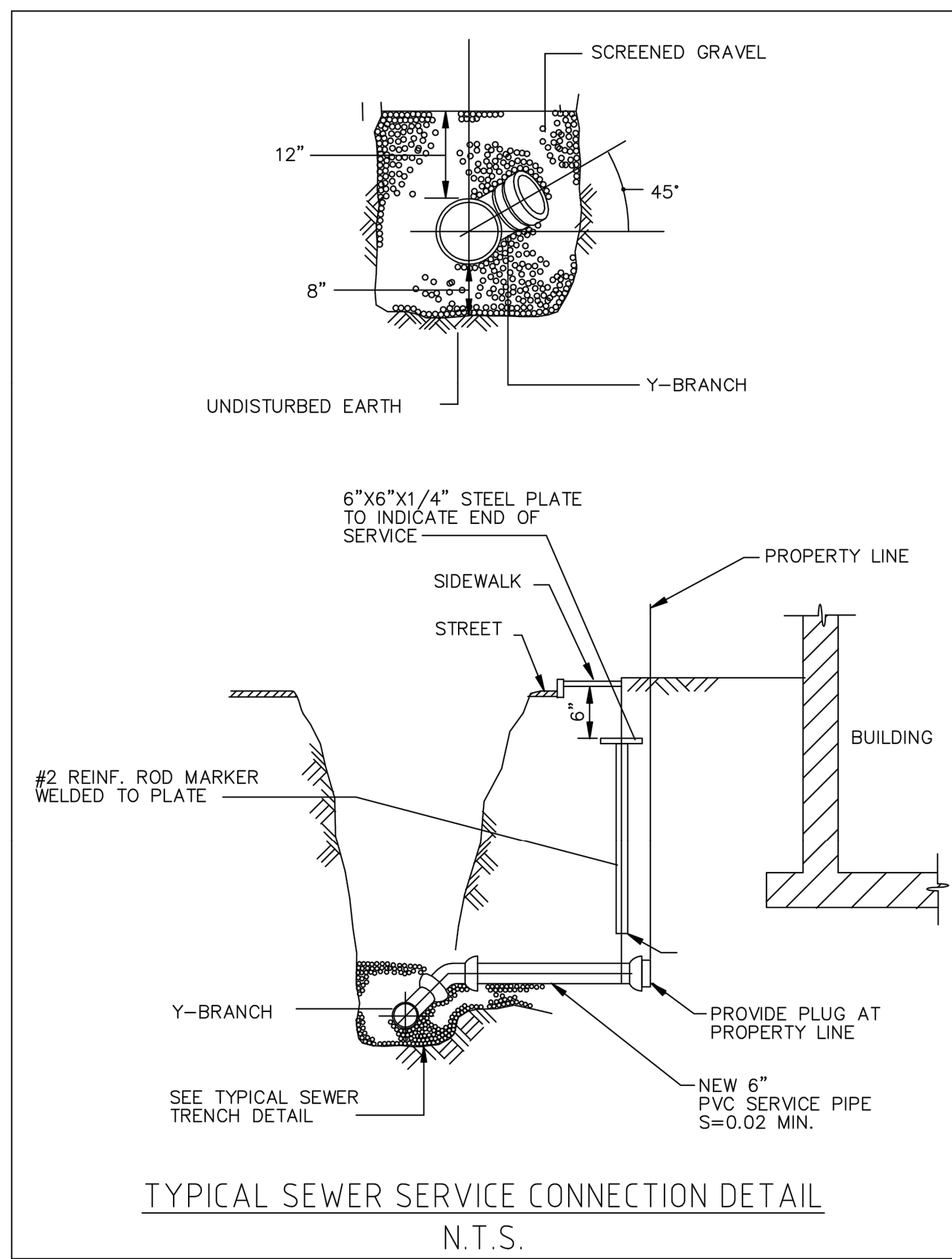
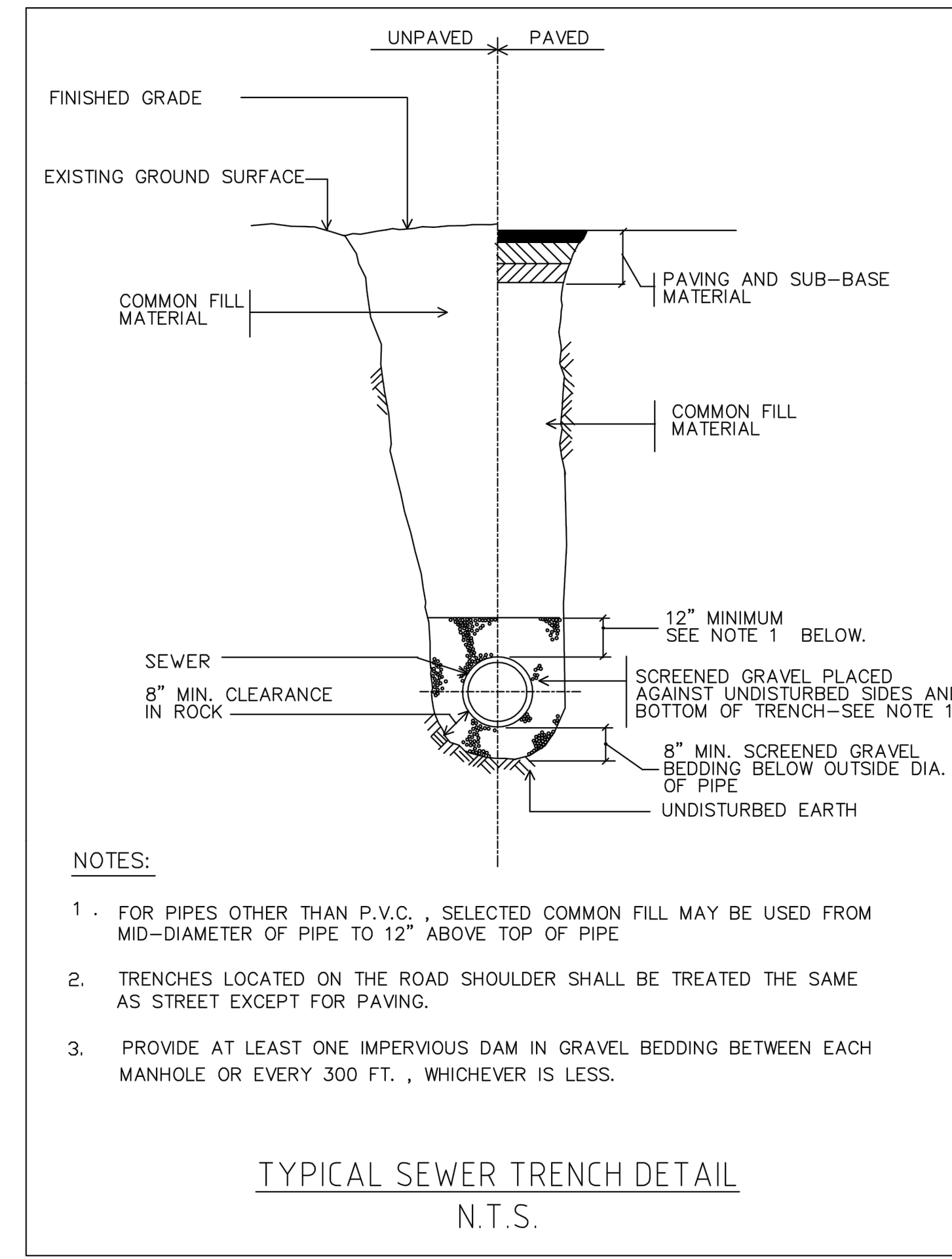
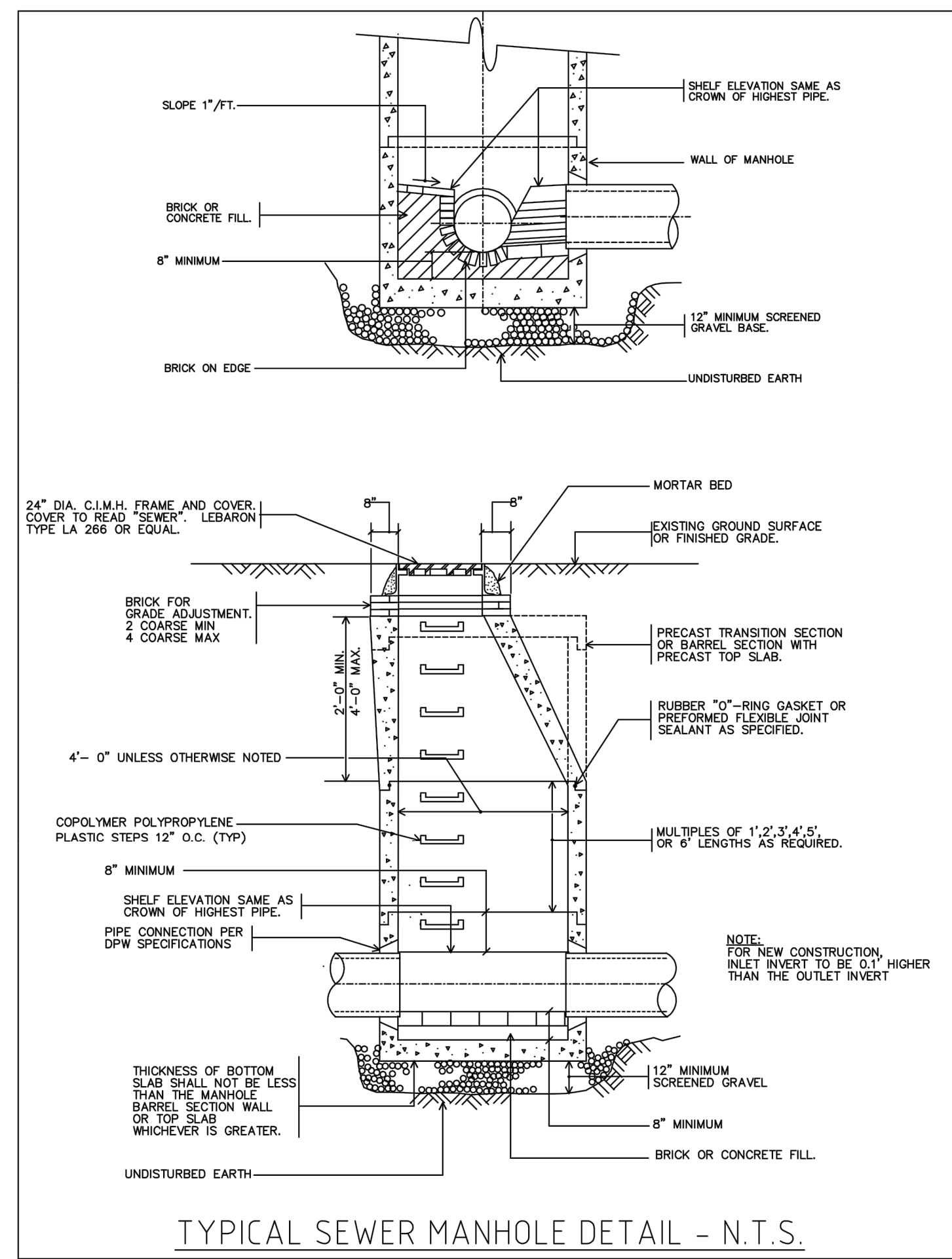
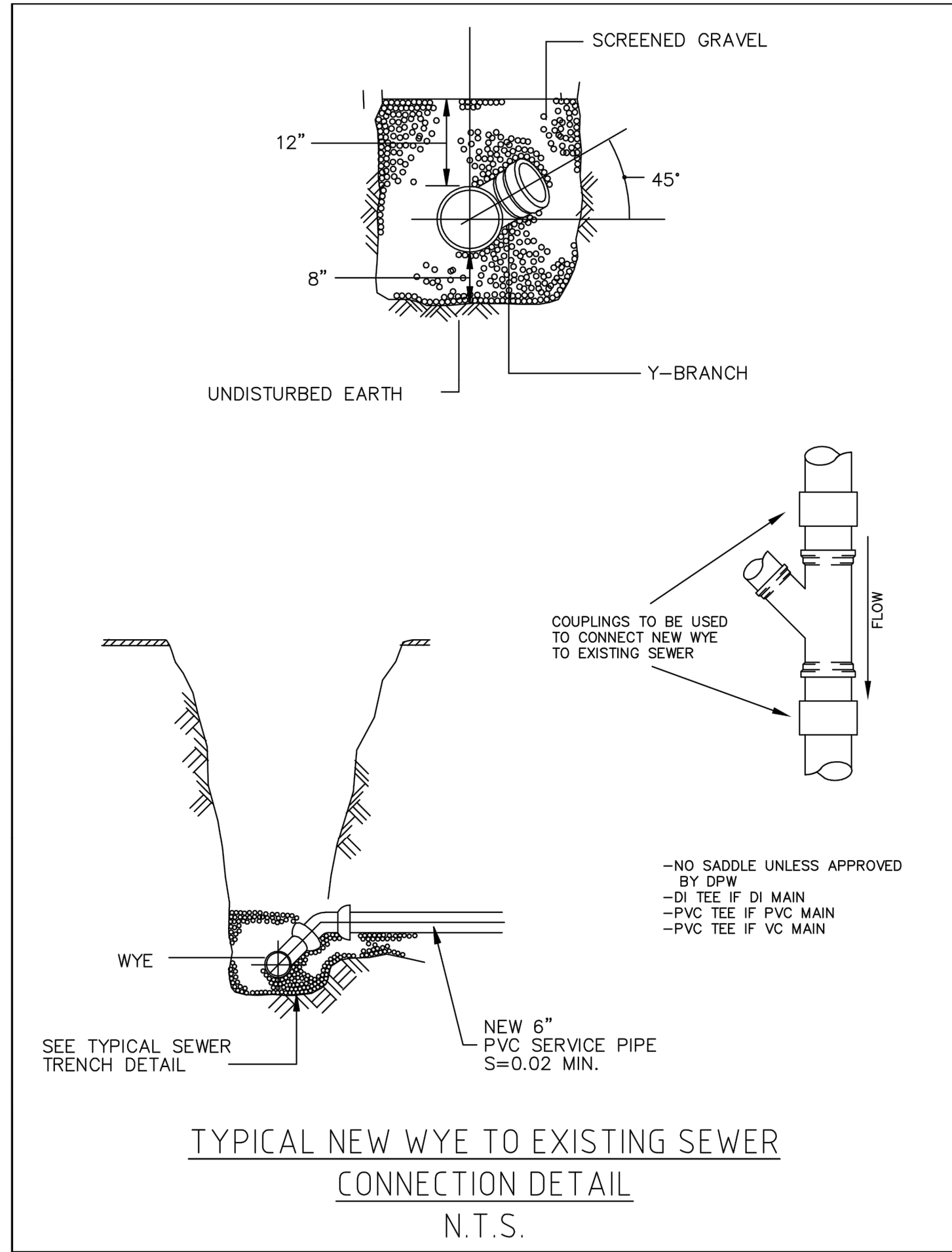
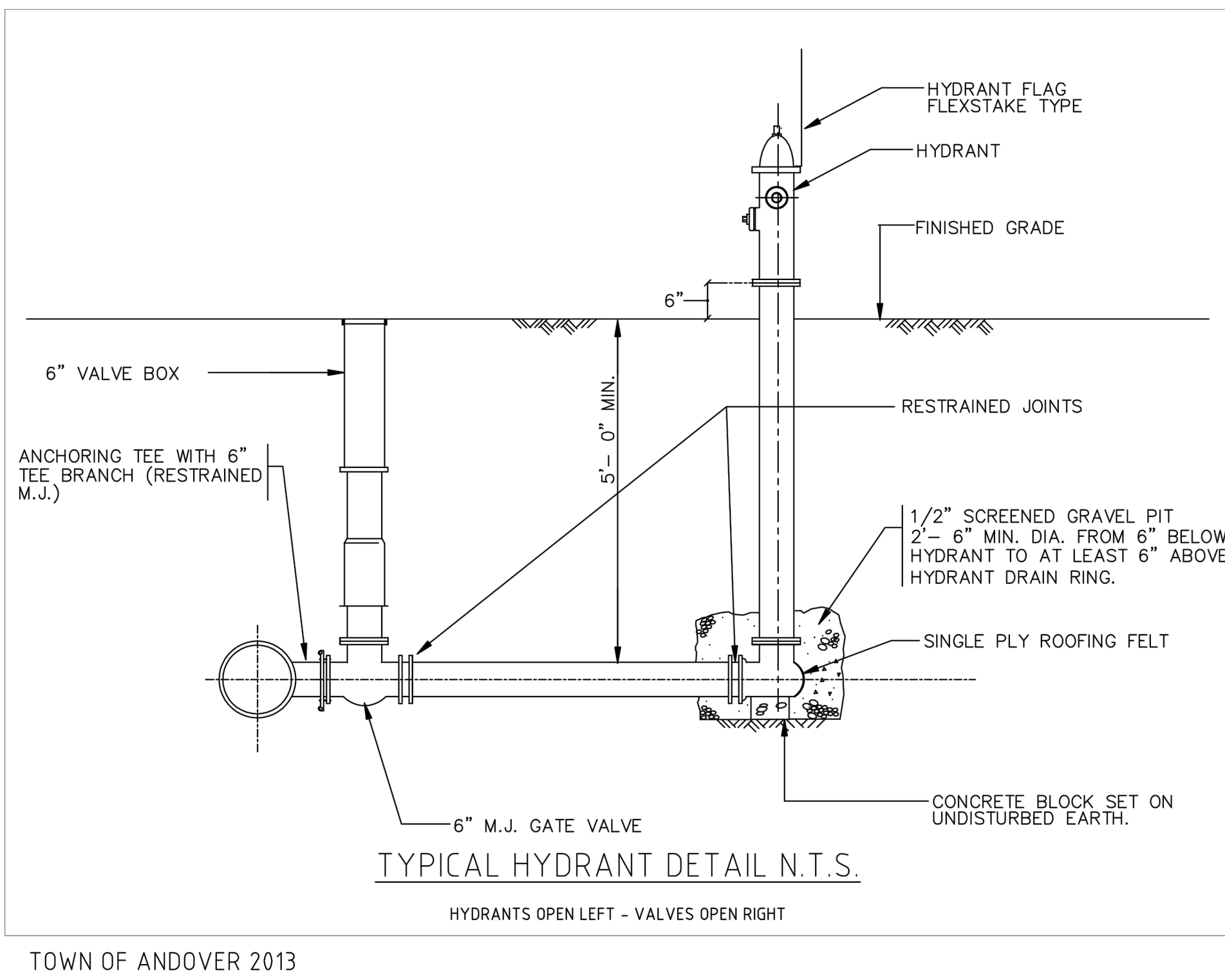
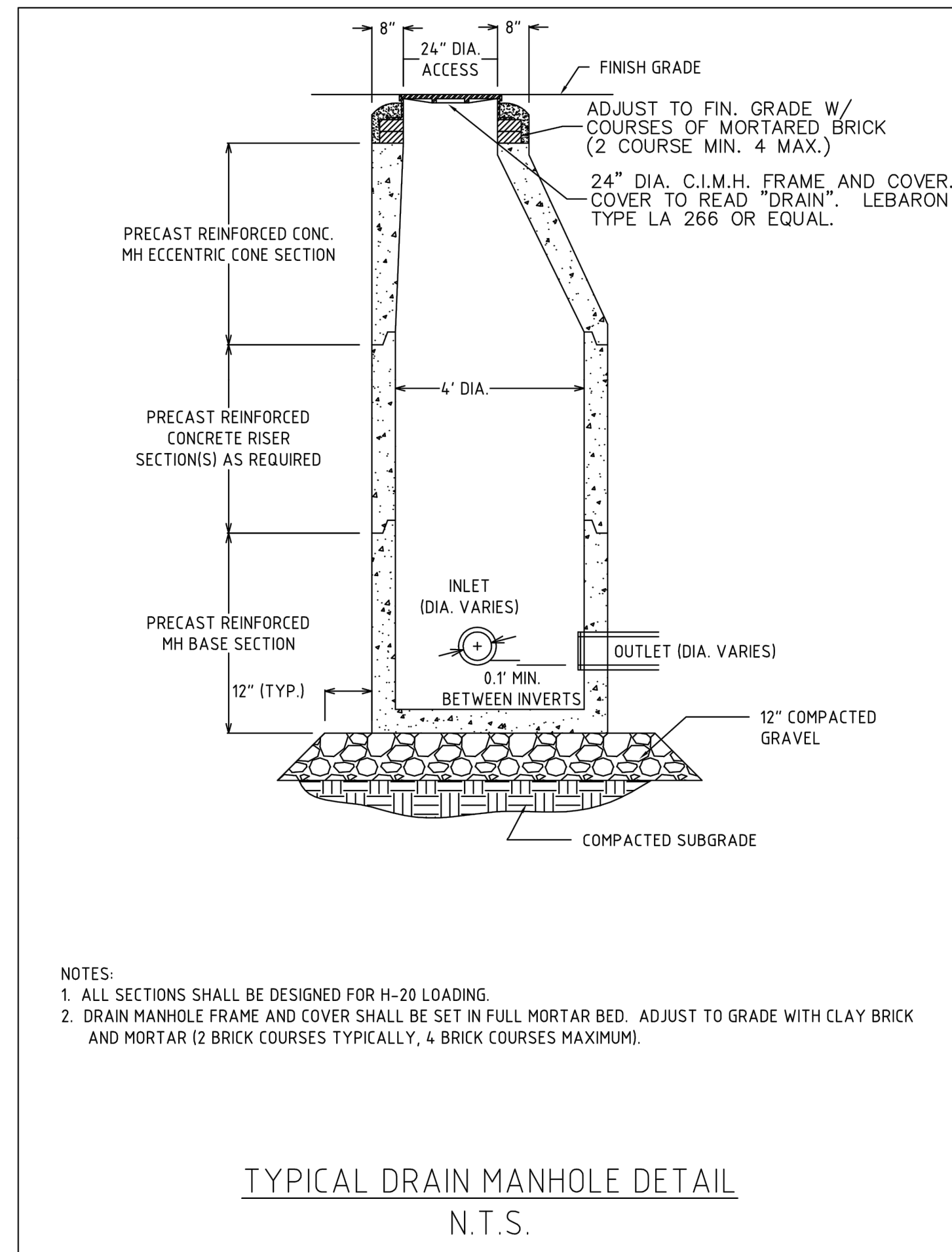
NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS

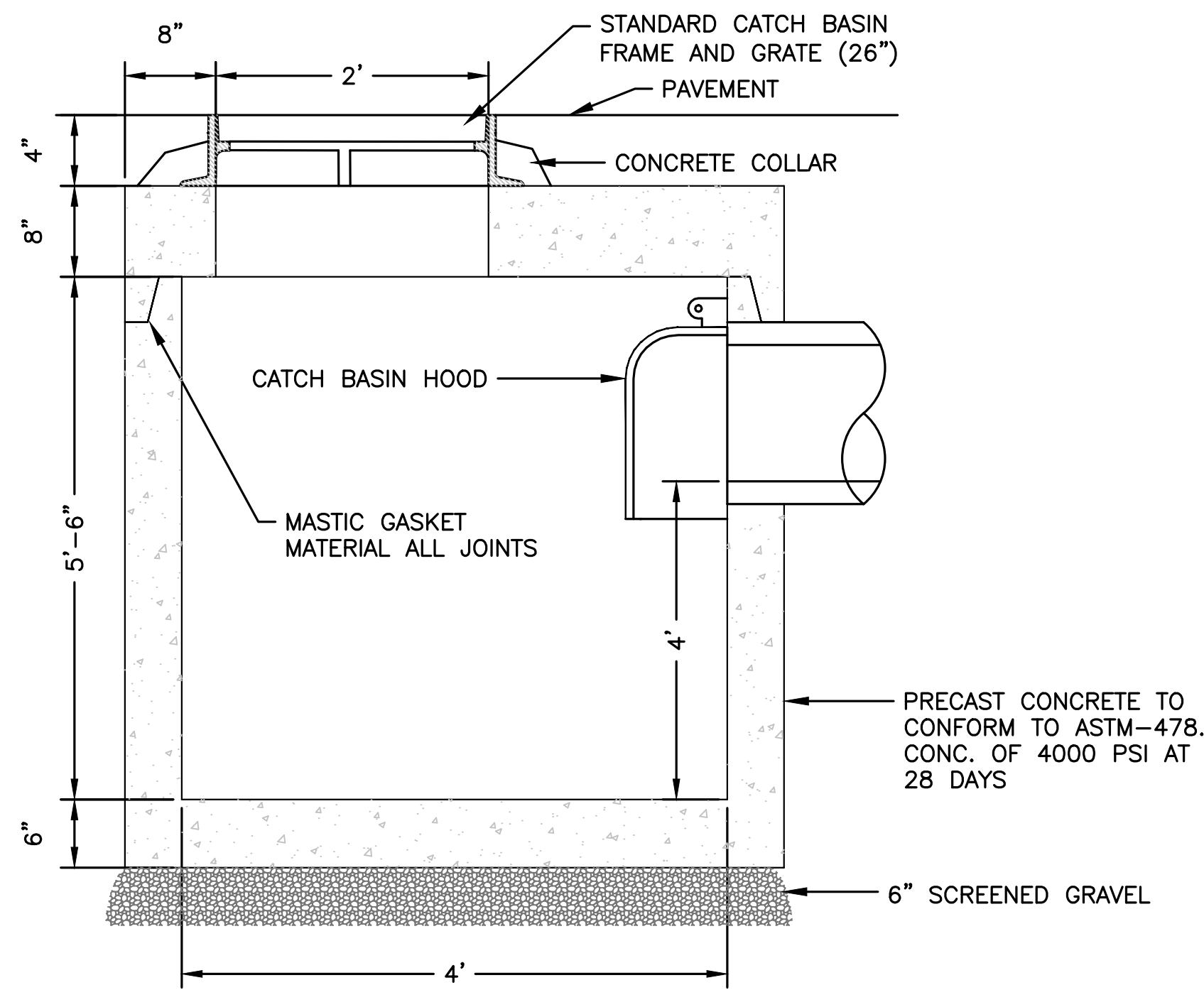


SITE PLAN

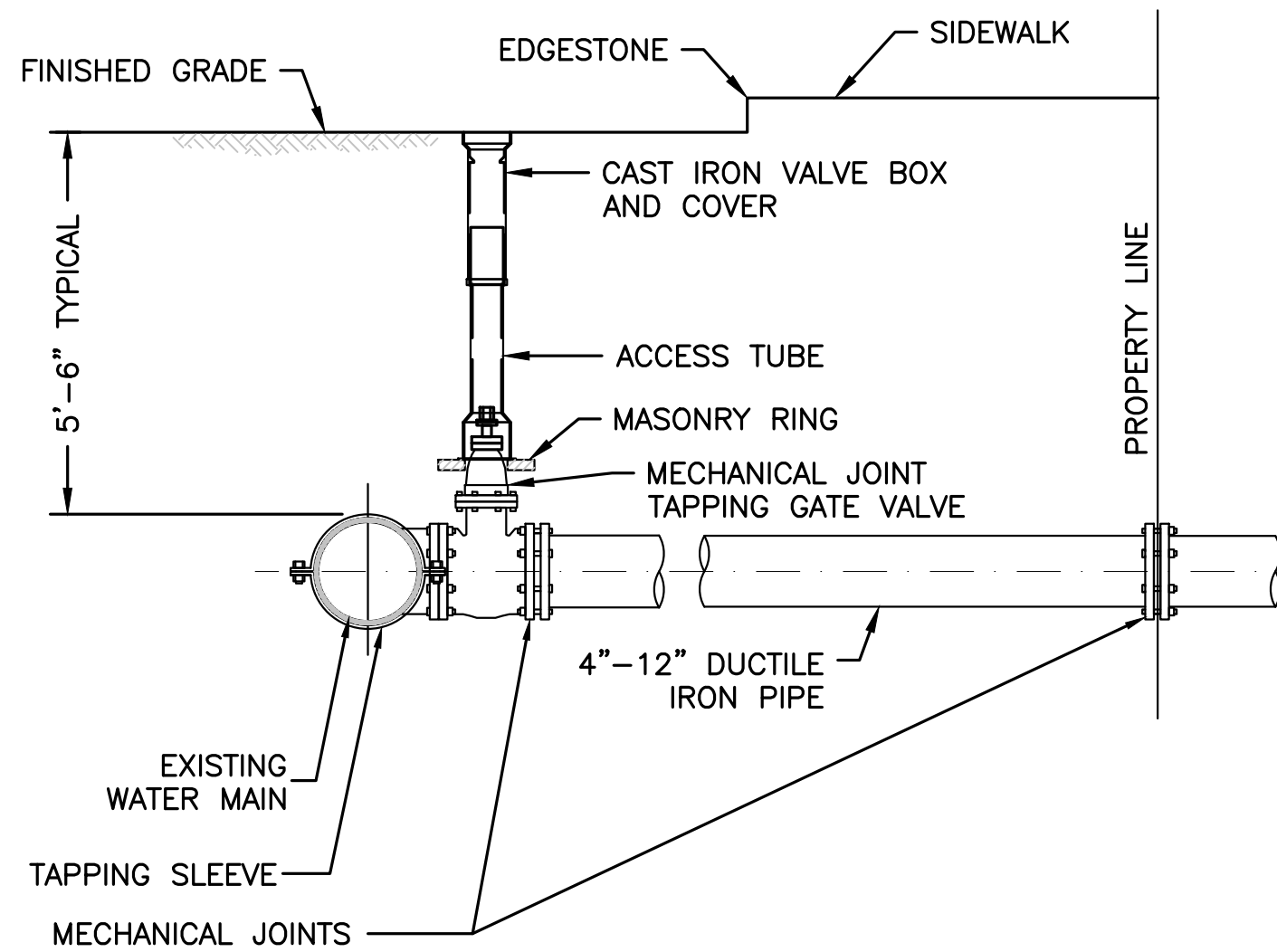
DETAIL SHEET  
 2 OF 4

DATE:	10-24-2017
PROJECT NUMBER:	17024
DESIGNED BY:	TM
DRAWN BY:	TM
CHECKED BY:	KE





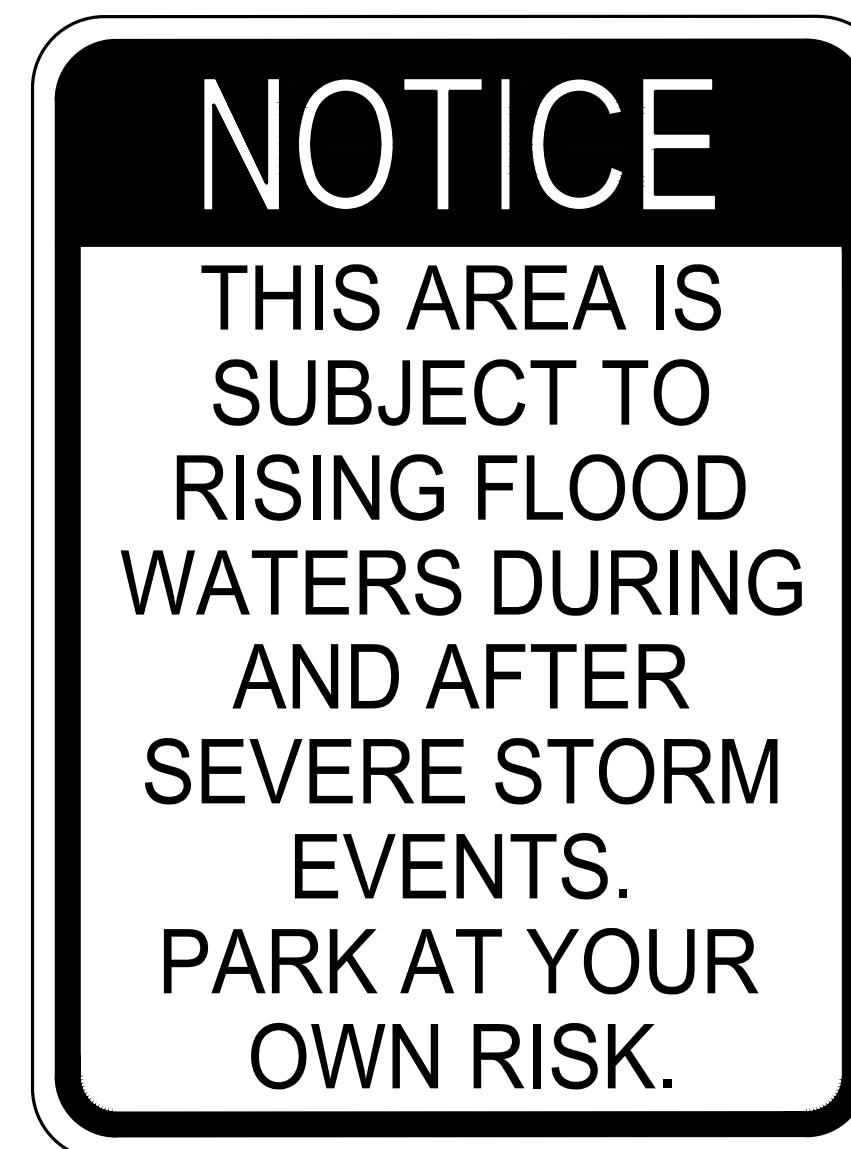
**SHALLOW CATCH BASIN DETAIL**  
NOT TO SCALE



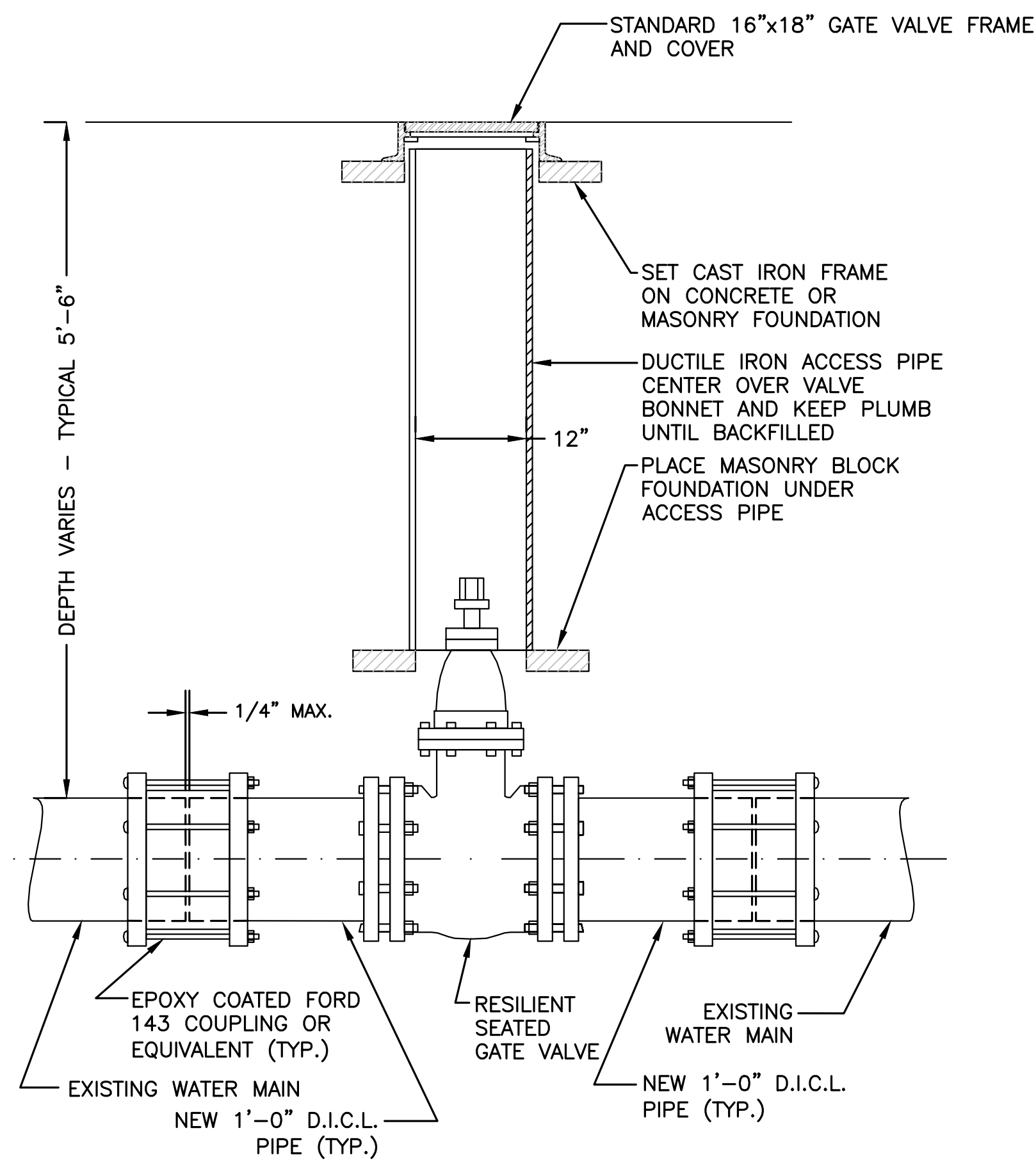
**NOTES:**

1. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.
2. USE RESTRAINED JOINT FITTINGS OR TIE RODS WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.
3. SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS.

**TAPPING SLEEVE & VALVE**  
NOT TO SCALE



**FLOOD SIGNAGE**  
NOT TO SCALE



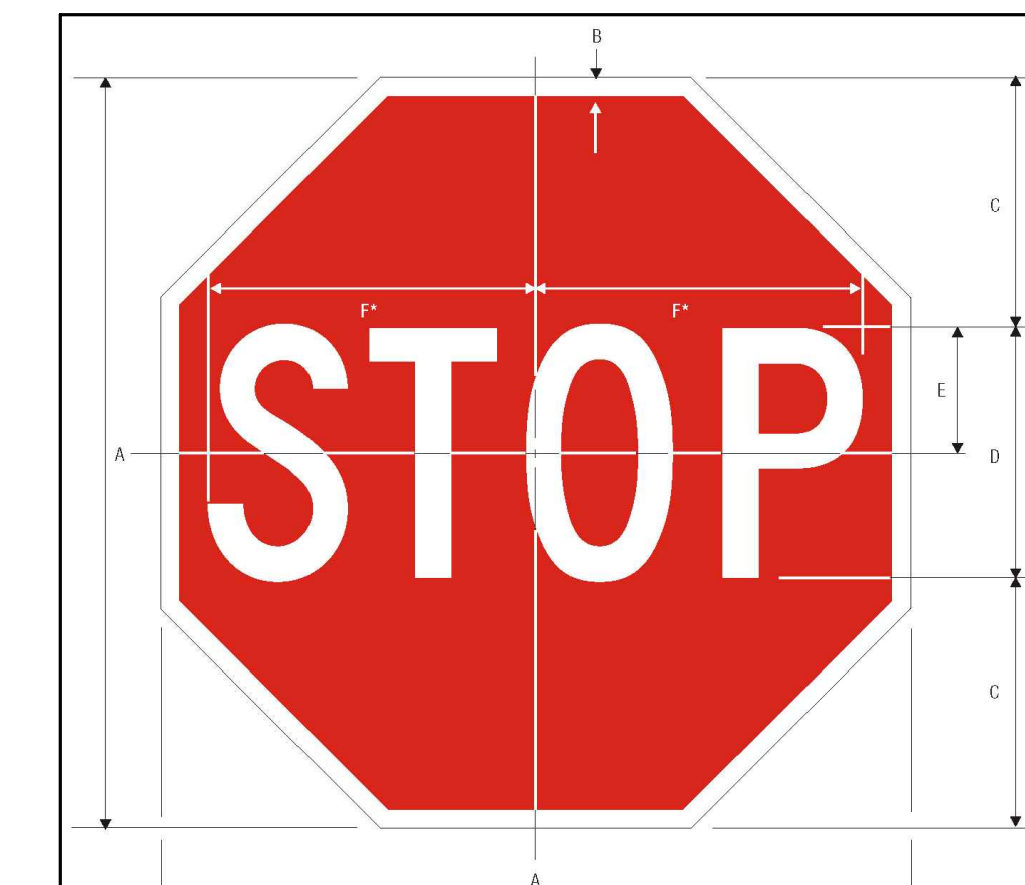
**NOTE:**

1. ALL EXCAVATION AND BACKFILLING AND PAVING SHALL BE IN ACCORDANCE WITH THE CITY OF BOSTON REQUIREMENTS.

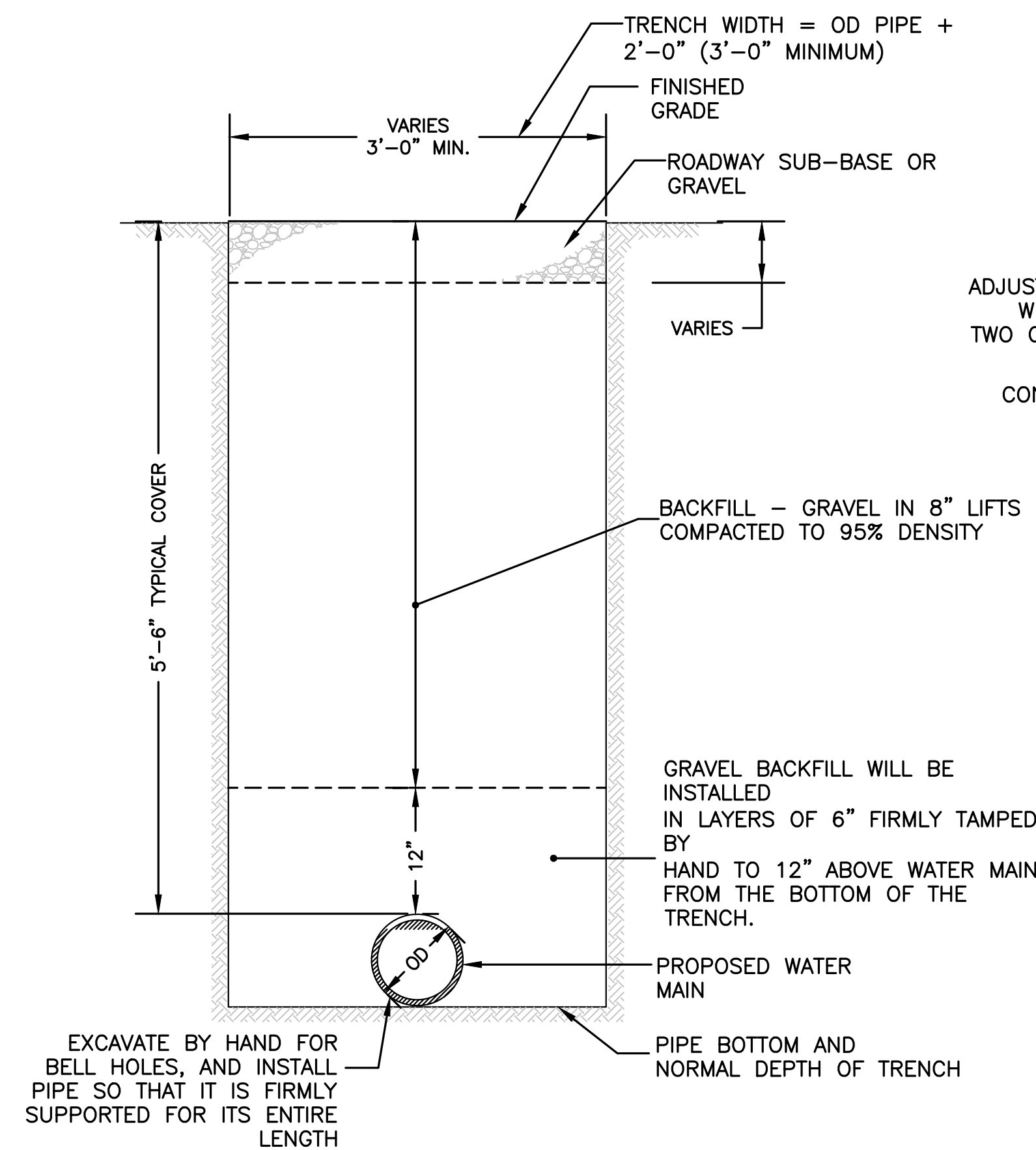
**TYPICAL GATE VALVE INSTALLATION**  
NOT TO SCALE



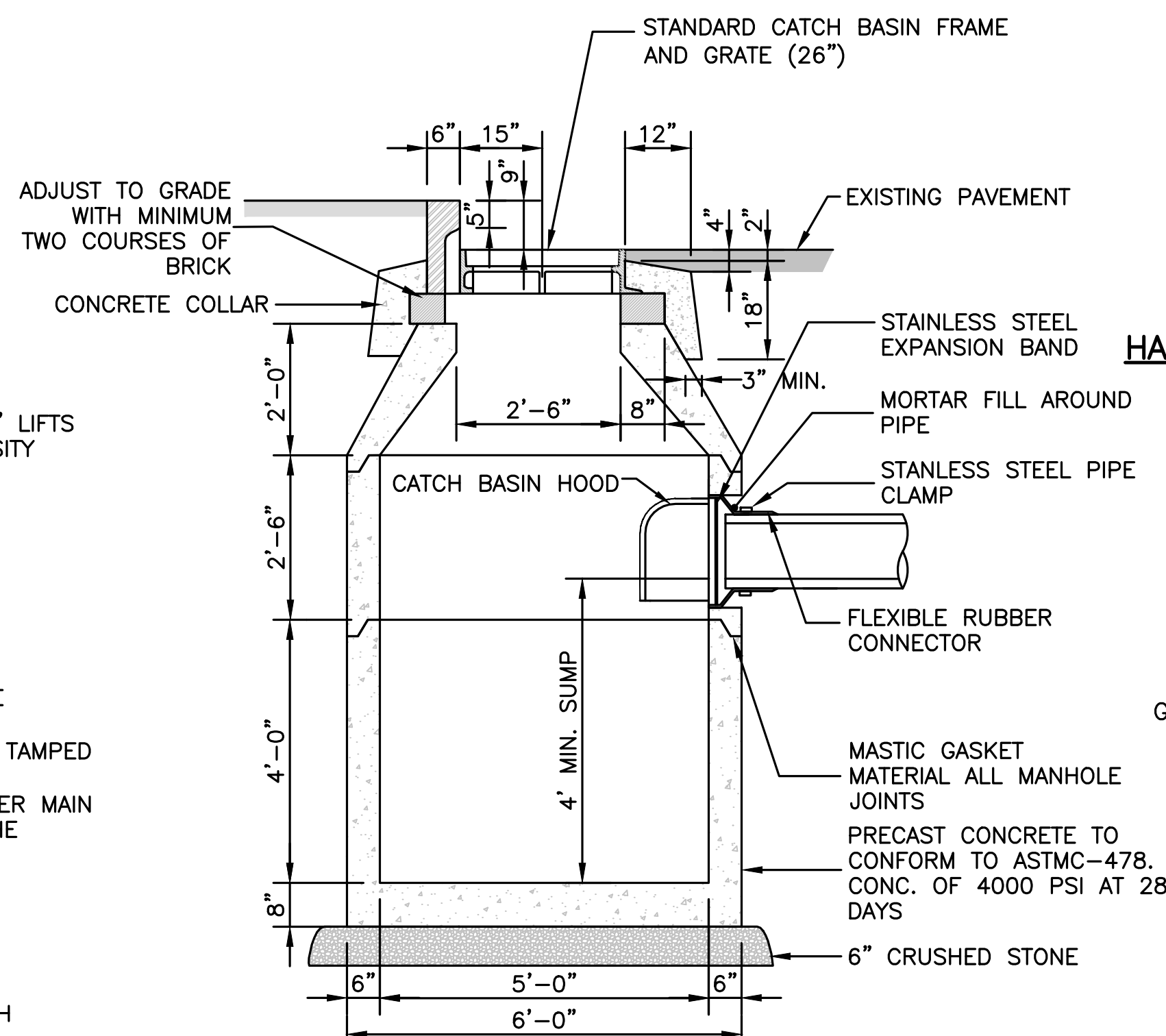
**HANDICAP & VAN ACCESSIBLE SIGNS DETAIL**  
NOT TO SCALE



**STOP SIGN R1-1 DETAIL**  
NOT TO SCALE



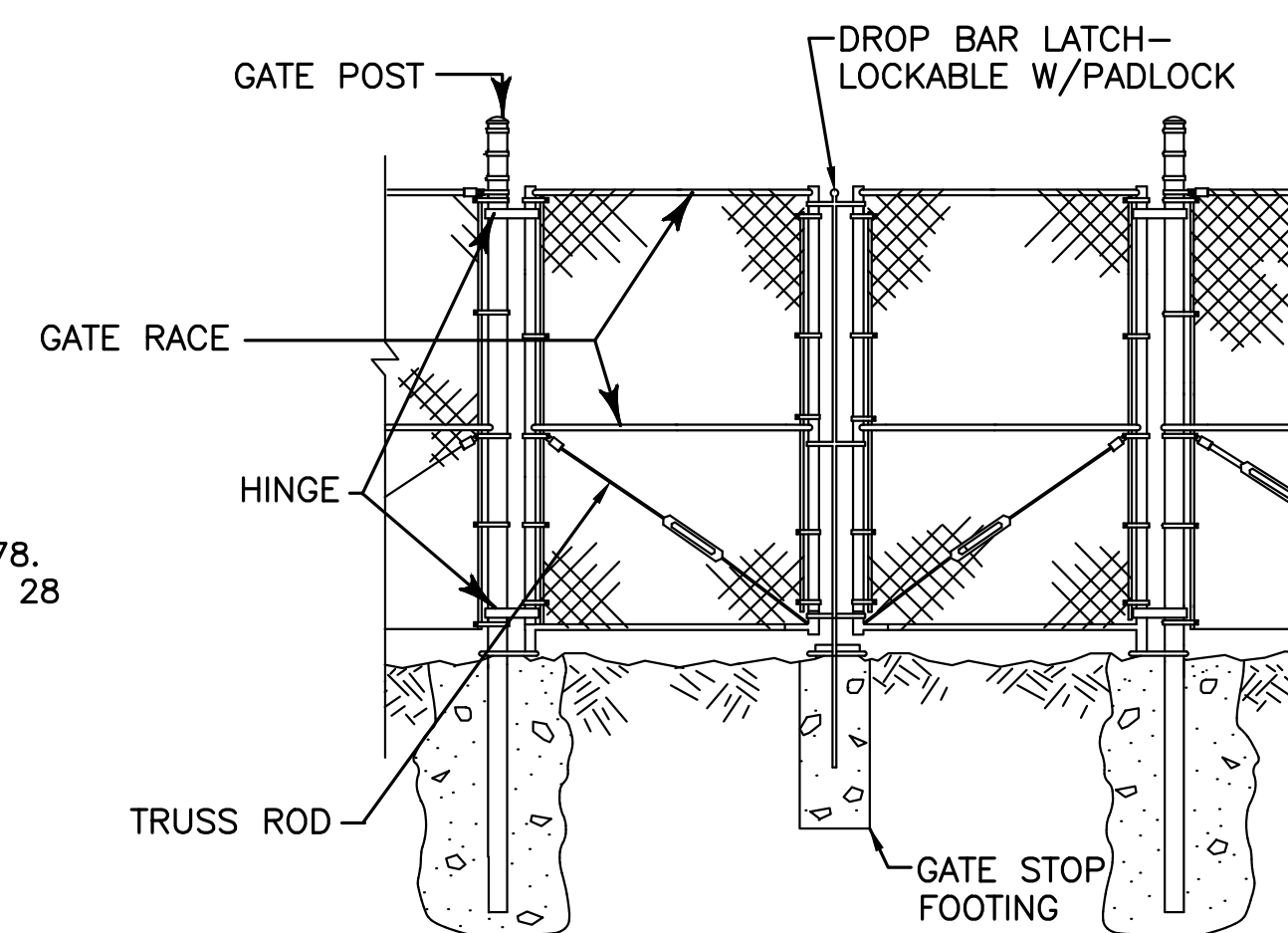
**TRENCH DETAIL - WATER MAIN**  
NOT TO SCALE



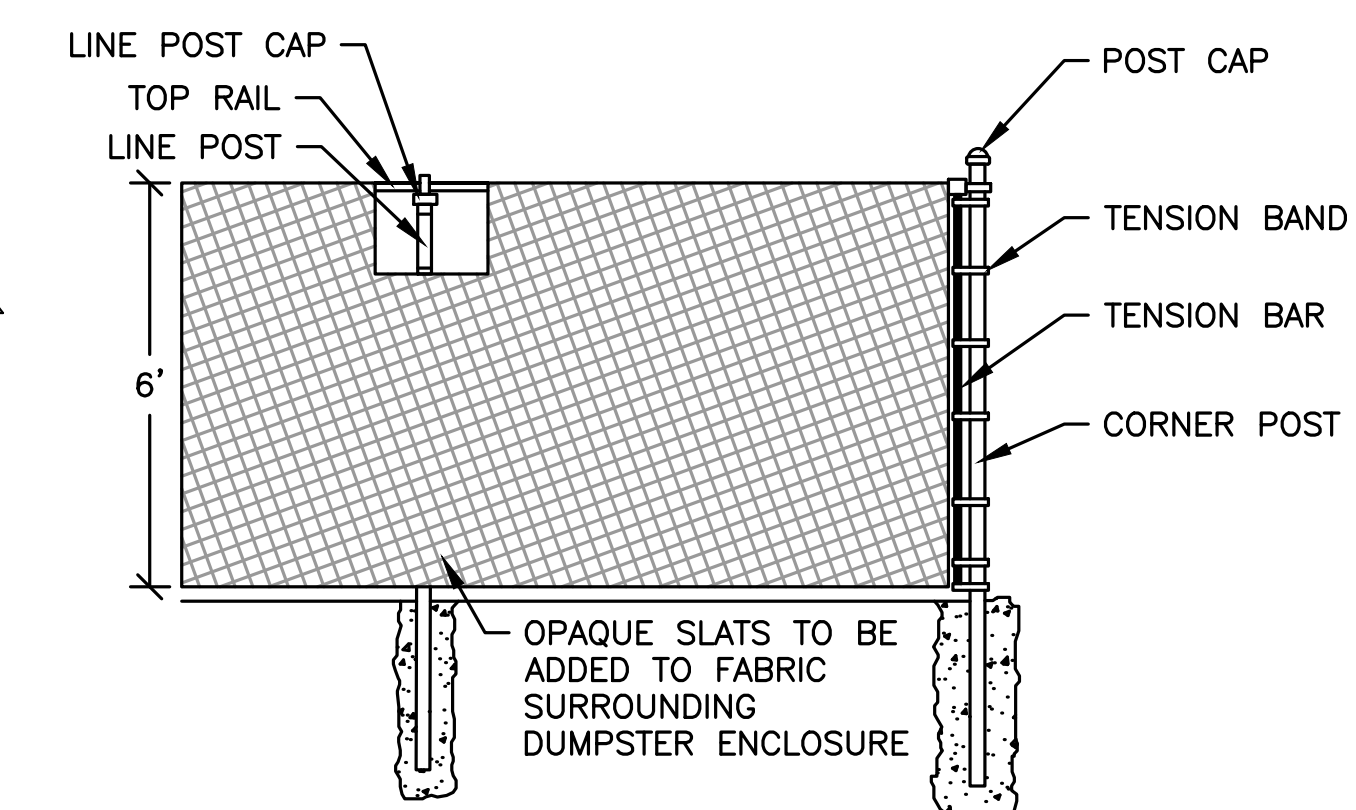
**NOTES:**

1. ADEQUATE FOR H-20 MINIMUM LOADING.

**CATCH BASIN**  
NOT TO SCALE



**CHAIN LINK FENCE DETAIL**  
NOT TO SCALE



PREPARED FOR:  
Neil Rosenberg  
7 Tantalton Road  
Andover, MA 01810

**THE TANTALLON  
PROPOSED MULTIFAMILY  
REDEVELOPMENT PROJECT  
7 TANTALLON ROAD  
ANDOVER, MA, 01810**

REVISIONS:

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



SITE PLAN

DETAIL SHEET  
3 OF 4

DATE:	10-24-2017
PROJECT NUMBER:	17024
DESIGNED BY:	TM
DRAWN BY:	TM
CHECKED BY:	KE



**HOWARD STEIN HUDSON**

114 Turnpike Road, Suite 2C  
Chelmsford, MA 01824  
www.hshassoc.com

PREPARED FOR:  
Neil Rosenberg  
7 Tantalum Road  
Andover, MA 01810

**THE TANTALLON  
PROPOSED MULTIFAMILY  
REDEVELOPMENT PROJECT**  
7 TANTALLON ROAD  
ANDOVER, MA, 01810

**REVISIONS:**

NO	BY	DATE	DESCRIPTION
10	SM	2/17/20	LAYOUT/DRAINAGE REVS.
11	KE	4/20/20	REV LANDSCAPE PLAN
12	MB	9/08/20	REV LANDSCAPE PLAN
13	PB	7/27/21	NOI SUBMISSION
14	MB	08/31/22	NOI SUBMISSION
15	MB	10/26/22	PER REVIEW COMMENTS
16	MB	11/01/22	REV PARKING
17	MB	11/17/22	PER REVIEW COMMENTS



SITE  
PLAN

DETAIL  
SHEET  
4 OF 4

DATE: 10-24-2017

PROJECT NUMBER: 17024

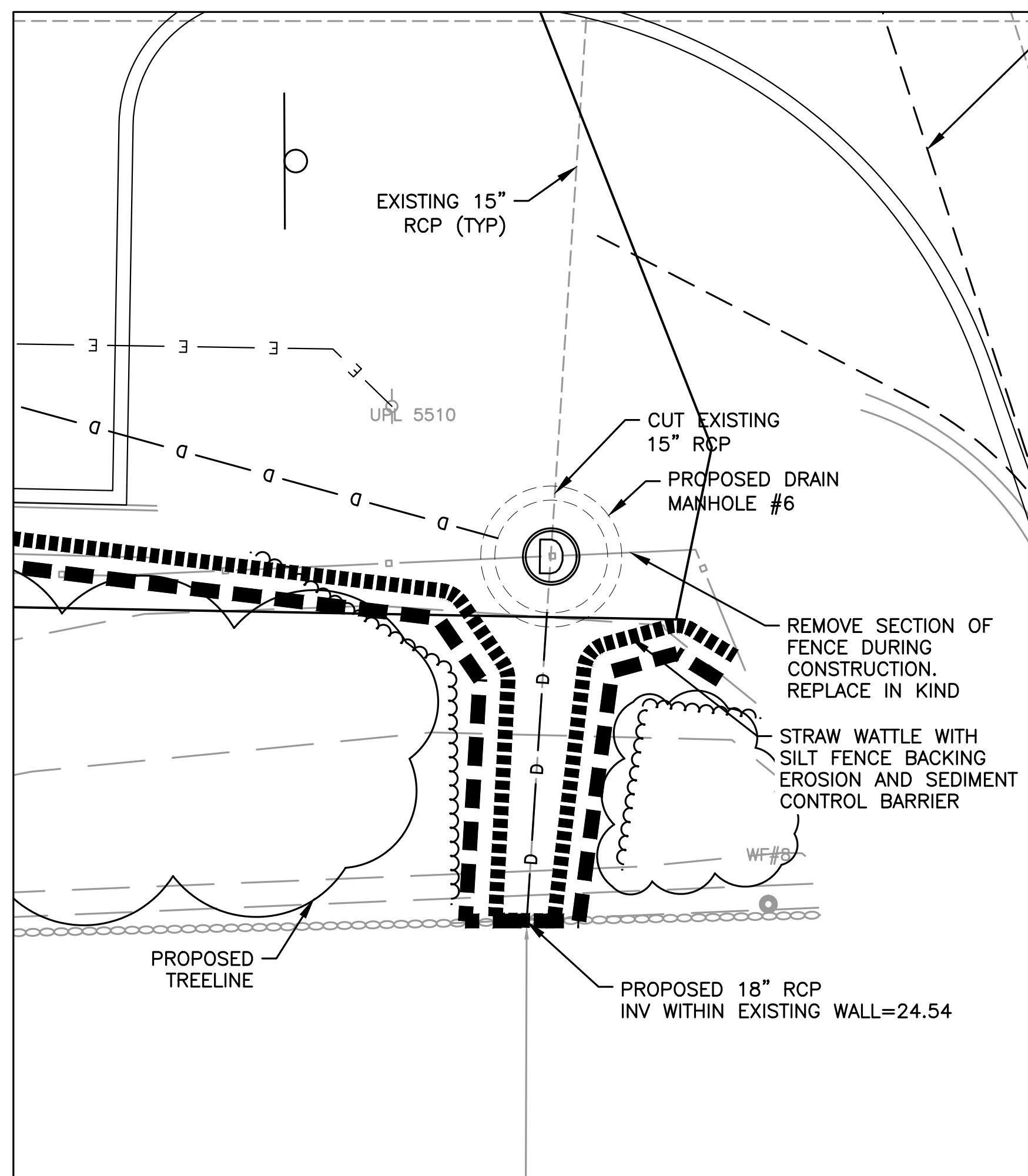
DESIGNED BY: TM

DRAWN BY: TM

CHECKED BY: KE

11

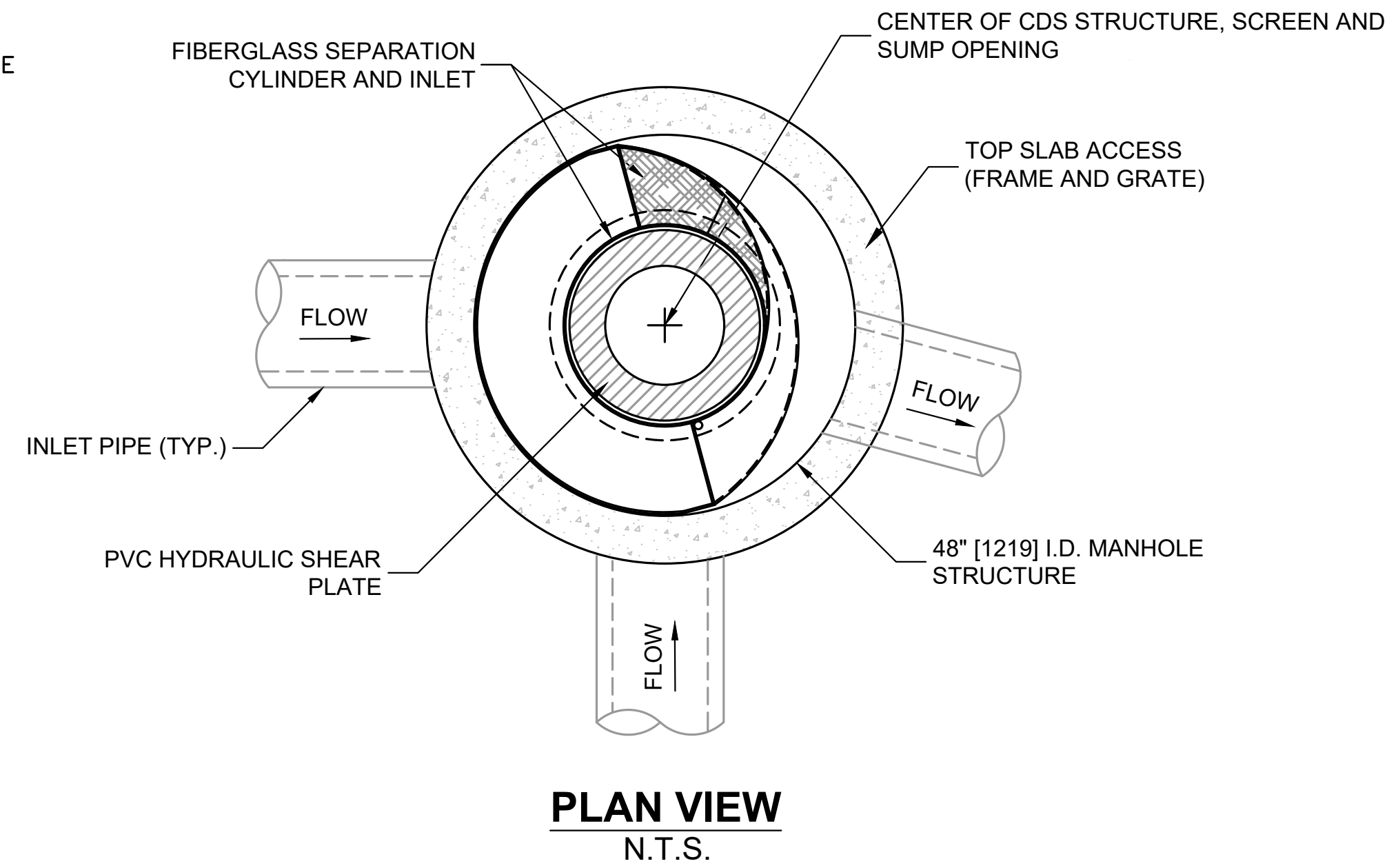
SHEET 11 OF 11



**OUTLET REPLACEMENT DETAIL**  
SCALE 1"=4'

**INSTALLATION NOTES**

1. PLACE EROSION CONTROLS, BOTH STRAW WATTLE AND SILT FENCE AT LIMIT OF WORK.
2. REMOVE STONES PLACED AT OUTLET BY HAND. PLACE STONES ADJACENT TO PIPE INSTALLATION FOR REUSE.
3. EXCAVATE PIPE AND CUT TO INSTALL NEW DRAINAGE MANHOLE.
4. INSTALL NEW DRAINAGE MANHOLE #6.
5. INSTALL NEW 18" RCP MAINTAINING THE SAME INVERT ELEVATION.
6. PLACE STONES AND ROCKS AROUND PIPE AND CAP IN KIND TO EXISTING WALL.
7. TO SECURE SLOPE LOAM AND SEED EXPOSED SOILS, INSTALL BIODEGRADABLE EROSION CONTROL BLANKET, PLANT SHRUBS PER LANDSCAPE PLAN.
8. LEAVE EROSION CONTROLS IN PLACE UNTIL ALL VEGETATION IS STABILIZED.

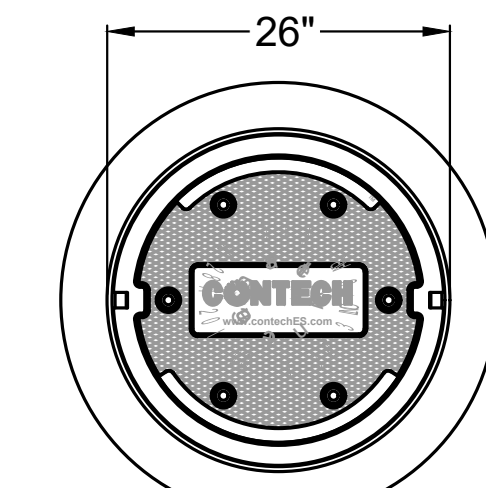
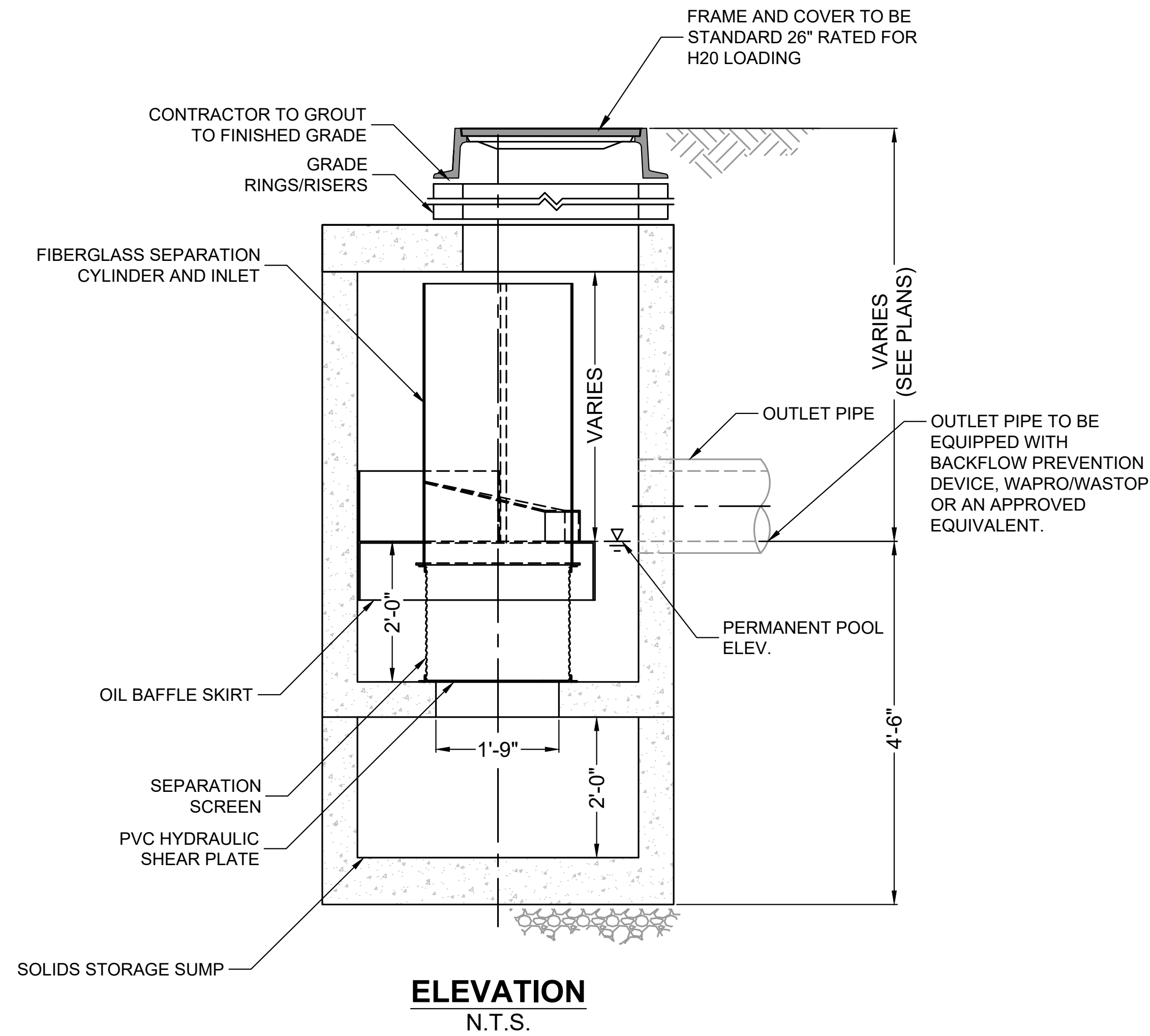


**GENERAL NOTES**

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO H520 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

**INSTALLATION NOTES**

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
- C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



**FRAME AND COVER**  
N.T.S.  
(PROVIDED BY CONTECH)

**DRAIN MANHOLE #6**  
**CONTECH CDS 2015-4 WATER QUALITY UNIT**  
NOT TO SCALE  
\*DETAIL PROVIDED BY CONTECH